DHCD, DBFR 2006 Code Change Process
April 9, 2007 Stakeholder's Meeting Agenda Package

Date: April 3, 2007
To: Stakeholders
From: Emory Rodgers, Deputy Director, BFRD-DHCD
Subject: Code Change Meetings for the 2006 Regulations

DHCD is holding two meetings for Stakeholders to attend and discuss submitted code changes and code issues for consensus. The meetings are being scheduled for April 9, 2007 at 9:30 here at DHCD in our Board Room and a 2nd meeting on June 18, 2007 also at 9:30 at DHCD in our Board Room. Please advise me if you plan to attend.

Most all of the issues listed have been on the table since last year so stakeholders could review them and decide if there was an interest in submitting code changes. In a few instances we have retained carryover issues from the 2003 regulations so the Board of Housing and Community Development's Codes and Standards Committee would be aware of the issue for reconsideration. There are also several 2007 legislative bills that would require the BHCD to take some action. Finally, we have new code changes and issues contained in the 2006 and 2009 model codes and just plain new code changes from our stakeholders.

USBC/International Residential Code:

1. R317.1: Code change to clarify how to apply the section when there is a property/lot line. Code change filed. **Work group.** **(Page No. 9)**

2. R408.3: Review more stringent venting for crawl spaces. No code change has been submitted. **(Page No. 10)**

3. R613.3: Sill height at 24 inches and should it be 18 inches? Code change to delete by Winchester Homes. Code change filed for 18 inches that was discussed with VBCOA and HBAV. **Work Group.** **(Page No. 13)**

4. R310.1: Does the state amendment need to be amended with "porch" besides "screen porch" and does the Exception #2 need to only have 13D as one can do a better system? **(Page No. 18)**

5. R312.1 and IBC 1013.1: ICC CTC committee has recommended clarification on how to measure for guards. Do we want to include in the 2006 USBC or wait until 2009? **(Page No. 19)**

6. R602.10: Va. wall bracing code change for 2006 IRC with many parts approved already for the 2009 IRC. C&S Committee approved for 2006 USBC. WTCA submitted 3 other code changes for stakeholders to review. BHCD question need for details on construction documents that maybe just a need to better explain why necessary versus unnecessary cost issue. **(Page No. 23)**

7. M1701: Provides new standards for leakage and supply. **(Page No. 37)**

8. P3007 and P3301.1: Two code changes to add requirements for sump pumps and subsoil drains so can have in IRC for contractors. **(Page No. 40)**

9. R301.2.1.1: Deletes 100 mph but others note RDP isn't required by 3 standards listed. **(Page No. 46)**

10. R403.1: Limits eaves to 10 feet coordination issue. **(Page No. 47)**

11. AG105: Two code changes natural barrier for pools, spas and hot tubs and use of alternate means. AG105.5 (3) not supported by C&S Committee - too subjective. **(Page No. 49)**

USBC/Administrative Provisions:

1. 103.3 and 108.1(1): Coordinate with Virginia Rehabilitation Code/IEBC and what is a "change of occupancy." **(Page No. 53)**

2. 103.4 – 103.7 and relation to R313.1 and others: Questions are brought up routinely on how to apply these sections and when new requirements are necessary or can use or replace with existing materials and equipment so as not to be deemed a hazard. Do we need clarification and code changes? **Would set up work group with VBCOA, VS-AIA, HBAV and FSBCC to submit.** **(Page No. 56)**

3. 108.2: As the section has added exceptions to permits we have exceptions to an exception that is bad format and can lead to confusion. Examples include roofing replacement not required except if in 110m.p.h wind zones or some interior finishes are exempt while others are not and ordinary repairs are exempted with then exceptions to that exemption. This has been discussed for several cycles and now is the time to reformat for clarity. **VBCOA and staff take lead.** **(Page No. 60)**

4. 108.2 and Senate Bill 1053 (07): BHCD to consider allowing localities with historic districts to be allowed and require a permit for roof, window and siding replacements. **Staff has drafted code change.** **(Page No. 65)**

5. 110.2 and House Bill 2497 (07): BHCD would allow annual permit to be issued for construction. **Staff has drafted code change.** **(Page No. 67)**

6. 110.6 and 113.3 and House Bill 2489 (07): Legislation to have 3-year limit on IRC building permits was tabled with expectation that the BHCD would take up this issue. Could delete present 6-months for suspension/abandonment of a permit and substitute the 3 years or retain 6-months and place 3-year limit or some combination thereof. **Staff will draft code change based on discussion.** **(Page No. 70)**

7. 107.2: Increases to the 2% surcharge for July 1, 2009 to allow JPVBCA to provide, track and administer CEU program; to increase technical modules and specialized training and to have more web-based code update training. **(Page No. 73)**

8. 108.2: Consider code change for canopies permit exemption to coordinate with the SFPC operational permits. Staff has prepared a change for construction permits under the SFPC (See item #4 under the SFPC section and page 153 of this package). **(Page No. 74)**

9. 111.2 and 1703.1: VBCOA code changes for special inspections that includes qualifications, standards and process issues. Used in Northern Virginia and Tidewater and some areas in Richmond now. **(Page No. 76)**

10. 113.3.6: Proposes to add requirement for inspections of vapor barriers, sealants, ducts and caulking to comply with IECC. Can do now under USBC. Some opposition. **(Page No. 80)**

USBC/Technical Amendments and IBC issues:

1. 310.1: Code change for bed and breakfast to be R-5 and not R-1 with 10 or less occupants. Would include staff or family residing in the home. A code change is prepared for review on this issue. **C&S Committee approved for 2006 draft regulations.** **(Page No. 82)**

2. 310.5 for R-5 and R-4: IBC would allow R-4 to not be sprinkled by referencing the IRC for construction. Do stakeholders want them to be sprinkled for all 16 persons for the 2006 USBC or 0 as in 2003 USBC or if more than 8 occupants as was in the 2000 USBC? **Staff did straw man code change for all 16.** **(Page No. 83)**

3. 308.3: Does the 2006 USBC address B ambulatory/outpatient surgical centers requiring alarm systems and sprinklers now or wait for the 2009 IBC to sort out? If the surgical centers receive federal payments they have to be sprinkled with alarm systems per NFPA 101. **(Page No. 85)**

4. E occupancy: Gyms and auditoriums are part of the E and not A occupancy in schools. Any interest on code changes? **VS-AIA has interest.** **(Page No. 87)**

5. Chapter 4 – Group I-3: Department of Corrections has submitted 12 or so code changes for review with commitment to have submitted into the 2nd cycle for the 2009 IBC. **Need code change forms and reasons for changes from DOC. Meet end of May.** **(Page No. 89)**

6. Table 503: Code change to have I-1 more stringent than IBC allowing wood construction only for 1-story buildings. ICC has work group reviewing Table 503. To date ICC work group has not going to extent of this code change. Survey of fire data for Group I shows good record on injuries, deaths and property losses (attached data). **(Page No. 94)**

7. 707.14.1: Code change to require for highrises an elevator enclosure that has 5 options. Legacy code and here in Virginia not required elevator lobbies where sprinkled per 13. Survey for over 7 stories shows two events with large losses, but very low when compared to numbers of building and square footage and very good life safety record (attached). **(Page No. 97)**

8. 903.2.1.2: A-2 would reduce from 300 to 100 occupants sprinklers that would now mandate sprinklers for many smaller restaurants. Is this okay with industry and what is the fire record? Would it be more realistic to leave at 300 and lower to 100 persons for nightclubs? Glenn obtain fire data on A-2 last 3-years and if sprinkled or not or if size/occupant load is noted. **VBCOA, VHTA, VS-AIA, FSBCC review. Survey shows modest property damage and good life safety record.**

(Page No. 103)

9. Tables 1015.1 and 1019.3: Would need 2nd exit at 49 persons versus 50 and where had more than 10 children in daycare. Does stakeholders want to retain 50 or are okay with 49 and 10? **VS-AIA prefers strongly to leave as is and has been for decades in legacy codes. Little data presented at national level to show need for change and adding all the new doors except in one legacy code and not other.**

(Page No. 105)

10. CO alarms: No code change to date, but is on ICC agenda in May. Senate Bill (07) 1077 tabled. VBCOA may submit code change for battery units on each floor for R-2, R-3-R-4 and R-5. Virginia Housing Commission would look at retroactive measure. Need to confirm deaths and sickness Virginia/nation with cost. DHCD/DFP and stakeholders doing educational program. ICC is studying and has code changes for approval. Retrofit could be at only heat source for the alarm? Many question technology and impact on 911 calls. **BHCD may receive letter to review for new construction. DHCD/SFMO and DFP have free alarms and grant for 2007-2008 for some 2500 CO alarms free to low income elderly and families with children.** **(Page No. 107)**

11. 1004.3 Posting occupant load: VS-AIA may do code change to have A at 1,000 sq. ft. before posting. Raises issues with DGS/BCOM requirements that exceed IBC/USBC.

(Page No. 108)

12. 407.9: VDH code change to require emergency power for I-2 and B surgical centers as licensure regulations require them now. Code change needs work in placement of text in the right sections. **Glenn will work with VDH.** **(Page No. 109)**

13. ~~Nightclub: Code change.~~ **Proponent withdrawing.** **(Page No. 114)**

14. IMC 507.2.2.2: Code change is to clarify that only counter top convection ovens and microwaves are exempted, but question arose on steamers. VHTA needs to have restaurant member's review and comment. VBCOA, VFPA, VPMIA need also to review. **Work group. Is challenged at ICC?** **(Page No. 115)**

15. IMC 403: Reduces A and E ventilation rates. Challenged at ICC in M44. May need to be amended for 2006 USBC? **(Page No. 117)**

16. 903.1.2.2: USBC amendment that attics use NFPA 13 in attics and 13R building. One project done as NFPA 13 in the attic was $169,000. **Work group 8-9 members: VBCOA, FSBCC, VAFPA, Fire Protection Engineer, VS-AIA, AOBA, HBAV, BOMA, VFPA, BFRD/SFMO-Staff** **(Page No. 119)**

17. IFGC 505: Ties gas stove into the hood system. VHTA may have issues on this hotly debated ICC/IFGC issue. Fairfax and other localities have done this for years. **Work group with VHTA, VBCOA/VPMIA, FSBCC. ICC challenged?** **(Page No. 123)**

18. Chapter 9 and 35: Code change to have NFPA 130 for transit systems referenced into IBC. Normally, BO does by USBC and modification process. **(Page No. 127)**

19. IFGC 701: Code change to coordinate from 2009 IFGC air and supply requirements for gas appliances. Deletes "unusually tight construction." **(Page No. 129)**

USBC/Virginia Maintenance Code:

1. 105.5 and 105.6: Question on when can placard for unsafe or unfit for human habitation? Can it be done immediately as most believe or you have to wait? Do we need code change? **(Page No. 132)**

2. Question on violations and unsafe provisions as being circular requiring a code change? **(Page No. 134)**

3. IPMC 304.14: Is it clear screens aren't required where there is mechanical ventilation and is a code change then necessary? **(Page No. 136)**

4. IPMC Table 404.5 from 2003: Insert into 2006 and the IRC and IBC so can enforce overcrowding and bedrooms sizes. Code changes are submitted. **(Page No. 137)**

5. 104.5.4.3: Code change to remove "generally" but is necessary since not all actions require permits. **(Page No. 144)**

Virginia Statewide Fire Prevention Code:

1. 508 and IPC: Question arose on fire mains and application of the USBC and SFPC that should work together and not conflict. Also need backflow protection. Any need for code change to ensure coordination? Delete April 9th if no interest. **(Page No. 145)**

2. 2404.15.5 and 2404.15.6: Cooking tents any need for code change for clarification on application and definitions? Delete April 9th if no interest. **(Page No. 149)**

3. International Wildland-Urban Interface Code: Code change submitted to allow localities to establish districts of 50 acres or more to provide access and defensible spaces around buildings. OAG asked by FSB to opine on legislation being necessary to allow adoption by localities and to establish districts? There is a comprehensive list of issues to discuss from technical to implementation and enforcement matters. **Needs to be reviewed by work group-13-15 members-FSBCC, VBCOA, DOF, BFRD/SFMO-Staff, HBAV, VAR, VML, VACO, AOBA, VS-AIA, Firefighters-paid and volunteers, VFPA, Citizen, DEQ, DCR.** **(Page No. 150)**

4. 108.5.12: Code change to delete canopies until USBC picks up permit exemption and may want to consider making canopies 900 sq. ft. the same as tents? **Staff code change.** **(Page No. 153)**

5. 107.11 and 108.4: Code change to allow fire official to suspend or not issue an operational permit when someone has minor incidents or incurs damages. **Staff has reviewed and finds four major issues.** **(Page No. 154)**

6. 805: Code change to limit in dormitory rooms wall hangings of combustible materials. **(Page No. 157)**

7. 904.11: Code change for UL300. As submitted could be considered retroactive because of date. Would then have to be USBC issue and legislation likely necessary. If were operational and parts not available or equipment issue might be just straight SFPC and USBC permit issues? **Work group-7-8: FSBCC, VBCOA, VHTA, VAFPA, Fire Protection Engineer, VPMIA, BOMA/AOBA.** **(Page No. 160)**

Others:

1. Work group will have a code change for in-building emergency communications for review at the April 9th meeting. **(Page No. 163)**

2. ICC IRC: 2006 IRC has in appendices. Code change for mandatory sprinklers 13D from appendices being heard at ICC for 2009 IRC. Not a 2006 USBC issue yet. Should there be any incentives such as glazing, fire separation and fire ratings or exempt more spaces ? Are there other options/alternative standards that the ICC/NAHB/NFPA could develop such as one head design; feed of domestic 1 inch supply avoiding separate costly fire line; and, sprinklers for bedrooms, kitchen and family/recreation rooms that is where most fires occur. Will arc-fault requirements and would better fire prevention and maintenance enforcement, better education and adoption of fail-safe cigarettes reduce deaths by at least 50% as touted by supporters? For now I am just looking for your ideas and strategies to have the many impacted stakeholders to review, to discuss options and with the outcome optimistically of reaching a consensus. **Work Group late 2007-2008 with 15 members: VBCOA, VS-AIA, HBAV, FSBCC, Firefighters, AOBA, VML, VACO, Citizen, Fire Protection Engineer, VFPA, Water purveyor, Insurance representative, PMPA, VAFPA, BRFD/SFMO staff.** **(Page No. 166)**

Amusement Device Regulations:

1. Code change that accident reporting is for the patrons and not the employees. **ADTAC met March 6th and will revise with a separate section for patrons and then employees and approve at June 2007 meeting.** **(Page No. 175)**

2. ADTAC June meeting and will develop code changes for inflatables and number of times to be inspected for rentals; include waterslides under gravity rides; add bumper boats; climbing walls new standards that requires wired-ropes to be annually replaced. **C&S Committee approved new ASTM standards for 2006 draft regulations.** **(Page No. 176)**

Industrialized Building Safety Regulations:

1. Do mobile units such as medical, food, library, sport, race car, museum, etc placed on sites for a day, few days, 30 days 180 days or longer fall under the IBR or USBC that are built off-site and have vehicle tags but do have public access. How would motor coach homes then be handled where they parked for 30-days to 6-months or longer? **(Page No. 177)**

2. Modular Building Institute. Two code changes on certification of existing buildings and certification for change of occupancy. **(Page No. 180)**

March 1, 2007 onward for New Code Changes and new issues:

1. SFPC 107.14: Change to indicate what the SFMO will inspect as nightclubs under its occupancy inspection program. Code change done. **(Page No. 186)**

2. 22 VAC 40-72-960 D: Requires licensed assisted living facilities to have by contract or on-site temporary emergency power 40 sq. ft. per person for HVAC, medical equipment, lights and refrigeration complying with the USBC. USBC needs language to coordinate with DSS regulations to limit requirements from those required emergency power systems? Staff is working with DSS and IAEI/VBCOA on code changes. **(Page No. 187)**

3. DHCD/DEQ R306.5 and IBC 2901.1: USBC needs amendments to reflect that DEQ and VDH both now cover sewer systems with VDH for private septic systems and DEQ doing public sewer systems. DEQ regulations also need to be revamped and until this is done need MOA to establish the demarcation of the USBC building drain and the DEQ mains and sewer lines that is normally not an issue as they are in public easements and not on private property. DEQ, DHCD and VDH working on new MOAs. **(Page No. 191)**

4. VCS and USBC: Two code changes that links the USBC designated training into the VCS and would allow the BHCD to establish a CEU program. OAG has advised that a CEU program needs to be in the law first. Code changes need to be reviewed with revised VCS where the BHCD delegates to DHCD operational authority. BHCD did not approve revised sections 20, 61 and 70. **(Page No. 194)**

5. Child Care: Doors finger protection just review what Child Day Council will review for 2009 regulations. **(No handout)**

6. Energy Building Code Changes: National groups submitting several to use 2009 provisions. **(Page No. 197)**

7. USBC/Virginia Rehabilitation Code: 2006 IEBC 704.4.1 how to interconnect incompatible systems and 704.4.1.5 for R-1 appears need to do entire building with fire alarm system while rest are for work areas; IEBC 703.2.1 Exception 3.2.4 what code do you use built under or new code; and, IEBC 708.2 requires upgrade of all wiring in A-1, A-2, A-5, H and I in work areas even though no electrical work might not be in the scope of the alterations. **(Page No. 208)**

8. USBC 108.3 and 113.6: Need to add electronic means to submit permit application, fax permits besides in-person and by mail. Need to discuss signature of applicant issues. Review written reports done by electronic means. **(Page No. 211)**

9. IRC R320: Department of Agriculture and Consumer Services is reviewing IRC R320 for changes and has a task force reviewing the requirements. **(Page No. 213)**

10. Farm buildings continue to have interpretation requests with new and interesting twists such as church services and land development offices in farm buildings. Is it time or the opportunity to review legislation/regulations for the 2009 process? **(Page No. 214)**

11. Should all construction documents for IRC be sealed? **(No handout)**

12. Virginia Housing Commission to look at retrofit sprinklers for senior adult and assisted living facilities including older highrises and mid-rises with NFPA 13 or 13R sprinkler systems. Would need legislation and have the BHCD to adopt regulations after the 2006 regulations are effective. **(Page No. 215)**

13. Machine Room-less Elevators (MRLs). Are their standards ready for adoption? **(Page No. 218)**

14. Two USBC changes for permits when Maintenance Code violations are present. **(Page No. 220)**

15. Coordination of USBC and SFPC for fire extinguishers. SFMO is working on possible change to delegate authority from USBC to SFPC. **(Page No. 223)**

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: **DHCD, the Jackson Center** **501 North Second Street** **Richmond, VA 23219-1321** **Tel. No. (804) 371 – 7150** **Fax. No. (804) 371 – 7092** **Email: bhcd@dhcd.state.va.us**		**Document No.**_____ **Committee Action:** _____ **BHCD Action:** _____

Submitted by: Michael Redifer **Representing:** _____

Address: _____ **Phone No.:** _____

Regulation Title: Virginia Construction Code **Section No(s):** R317.1

Proposed Change:

R317.1 Two-family dwellings. Dwelling units in two-family dwellings shall be separated from each other by wall and/or floor assemblies having not less than a 1-hour fire-resistance rating when tested in accordance with ASTM E 119. Fire-resistance-rated floor-ceiling and wall assemblies shall extend to and be tight against the exterior wall, and wall assemblies shall extend to and be tight against the underside of the roof sheathing. Wall assemblies constructed on a lot line shall be extended as required for townhouses in Section R317.2.2.

Exceptions:

1. A fire-resistance rating of ½ hour shall be permitted in buildings equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13.
2. For two-family dwellings located on the same lot, ~~W~~wall assemblies need not extend through attic spaces when the ceiling is protected by not less than 5/8-inch (15.9 mm) Type X gypsum board and an attic draft stop constructed as specified in Section R502.12.1 is provided above and along the wall assembly separating the dwellings. The structural framing supporting the ceiling shall also be protected by not less than ½-inch (12.7 mm) gypsum board or equivalent.

Supporting Statement:

There has been some confusion regarding the required fire-resistance rating of separation walls of two-family dwellings when such walls are constructed on a lot line. This change is to clarify that the presence of a lot line does not increase the life-safety hazard associated with the occupancy of the building and therefore no increase in the fire-resistance-rating is necessary. The change does, however, recognize a need to provide an increase in property protection and does so by incorporating the parapet (or alternate adjacent roof) protection found in Section R317.2.2 and by reference R317.2.3 applicable to townhouse construction.

TABLE R404.4(5)
SCREEN-GRID ICF FOUNDATION WALLS[a, b, c, d, e]

MINIMUM NOMINAL WALL THICKNESS[f] (inches)	HEIGHT OF BASEMENT WALL (feet)	MAXIMUM UNBALANCED BACKFILL HEIGHT[g] (feet)	MINIMUM VERTICAL REINFORCEMENT SIZE AND SPACING		
			Soil classes[h] and design lateral soil load (psf per foot of depth)		
			GW, GP, SW and SP 30	GM, GC, SM, SM-SC and ML 45	SC, ML-CL and inorganic CL 60
6	8	4	#4@48″	#3@12″; #4@24″; #5@36″	#3@12″; #5@24″
		5	#3@12″; #4@24″	#3@12″	#4@12″
		6	#4@12″	#5@12″	Design required
		7	#4@12″	Design required	Design required
	9	4	#4@48″	#3@12″; #4@24″	#3@12″; #6@24″
		5	#3@12″; #5@24″	#4@12″	#7@12″
		6	#4@12″	Design required	Design required
		7	Design required	Design required	Design required
		8	Design required	Design required	Design required
	10	4	#4@48″	#3@12″; #5@24″	#3@12″
		5	#3@12″	#4@12″	#7@12″
		6	#4@12″	Design required	Design required
		7	Design required	Design required	Design required
		8	Design required	Design required	Design required

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square inch = 6.895 kPa, 1 pound per square foot = 0.0479 kPa.

a. This table is based on concrete with a minimum specified concrete strength of 2500 psi, reinforcing steel with a minimum yield strength of 40,000 psi. When reinforcing steel with a minimum yield strength of 60,000 psi is used, the spacing of the reinforcement in the shaded cells shall be increased 12 inches.

b. This table is not intended to prohibit the use of an ICF manufacturer's tables based on engineering analysis in accordance with ACI 318.

c. N/R denotes "not required."

d. Deflection criteria: *L*/240.

e. Interpolation between rebar sizes and spacing is not permitted.

f. Refer to Table R611.4(2) for wall dimensions.

g. Unbalanced backfill height is the difference in height of the exterior and interior finished ground. Where an interior concrete slab is provided, the unbalanced backfill height shall be measured from the exterior finished ground level to the top of the interior concrete slab.

h. Soil classes are in accordance with the Unified Soil Classification System. Refer to Table R405.1.

R406.3.4 Backfill. The remainder of the excavated area shall be backfilled with the same type of soil as was removed during the excavation.

SECTION R407
COLUMNS

R407.1 Wood column protection. Wood columns shall be protected against decay as set forth in Section R319.

R407.2 Steel column protection. All surfaces (inside and outside) of steel columns shall be given a shop coat of rust-inhibitive paint, except for corrosion-resistant steel and steel treated with coatings to provide corrosion resistance.

R407.3 Structural requirements. The columns shall be restrained to prevent lateral displacement at the bottom end. Wood columns shall not be less in nominal size than 4 inches by 4 inches (102 mm by 102 mm) and steel columns shall not be less than 3-inch-diameter (76 mm) standard pipe or approved equivalent.

Exception: In Seismic Design Categories A, B and C columns no more than 48 inches (1219 mm) in height on a pier or footing are exempt from the bottom end lateral displacement requirement within underfloor areas enclosed by a continuous foundation.

SECTION R408
UNDER-FLOOR SPACE

R408.1 Ventilation. The under-floor space between the bottom of the floor joists and the earth under any building (except space occupied by a basement) shall have ventilation openings through foundation walls or exterior walls. The minimum net area of ventilation openings shall not be less than 1 square foot (0.0929 m^2) for each 150 square feet (14 m^2) of under-floor space area. One such ventilating opening shall be within 3 feet (914 mm) of each corner of the building.

R408.2 Openings for under-floor ventilation. The minimum net area of ventilation openings shall not be less than 1 square foot (0.0929 m^2) for each 150 square feet (14 m^2) of under-floor area. One ventilating opening shall be within 3 feet (914 mm) of each corner of the building. Ventilation openings shall be covered for their height and width with any of the following

TABLE R405.1
PROPERTIES OF SOILS CLASSIFIED ACCORDING TO THE UNIFIED SOIL CLASSIFICATION SYSTEM

SOIL GROUP	UNIFIED SOIL CLASSIFICATION SYSTEM SYMBOL	SOIL DESCRIPTION	DRAINAGE CHARACTERISTICS[a]	FROST HEAVE POTENTIAL	VOLUME CHANGE POTENTIAL EXPANSION[b]
Group I	GW	Well-graded gravels, gravel sand mixtures, little or no fines	Good	Low	Low
	GP	Poorly graded gravels or gravel sand mixtures, little or no fines	Good	Low	Low
	SW	Well-graded sands, gravelly sands, little or no fines	Good	Low	Low
	SP	Poorly graded sands or gravelly sands, little or no fines	Good	Low	Low
	GM	Silty gravels, gravel-sand-silt mixtures	Good	Medium	Low
	SM	Silty sand, sand-silt mixtures	Good	Medium	Low
Group II	GC	Clayey gravels, gravel-sand-clay mixtures	Medium	Medium	Low
	SC	Clayey sands, sand-clay mixture	Medium	Medium	Low
	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	Medium	High	Low
	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	Medium	Medium	Medium to Low
Group III	CH	Inorganic clays of high plasticity, fat clays	Poor	Medium	High
	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	Poor	High	High
Group IV	OL	Organic silts and organic silty clays of low plasticity	Poor	Medium	Medium
	OH	Organic clays of medium to high plasticity, organic silts	Unsatisfactory	Medium	High
	Pt	Peat and other highly organic soils	Unsatisfactory	Medium	High

For SI: 1 inch = 25.4 mm.

a. The percolation rate for good drainage is over 4 inches per hour, medium drainage is 2 inches to 4 inches per hour, and poor is less than 2 inches per hour.

b. Soils with a low potential expansion typically have a plasticity index (PI) of 0 to 15, soils with a medium potential expansion have a PI of 10 to 35 and soils with a high potential expansion have a PI greater than 20.

materials provided that the least dimension of the covering shall not exceed $^1/_4$ inch (6.4 mm):

1. Perforated sheet metal plates not less than 0.070 inch (1.8 mm) thick.
2. Expanded sheet metal plates not less than 0.047 inch (1.2 mm) thick.
3. Cast-iron grill or grating.
4. Extruded load-bearing brick vents.
5. Hardware cloth of 0.035 inch (0.89 mm) wire or heavier.
6. Corrosion-resistant wire mesh, with the least dimension being $^1/_8$ inch (3.2 mm).

R408.3 Unvented crawl space. Ventilation openings in under-floor spaces specified in Sections R408.1 and R408.2 shall not be required where:

1. Exposed earth is covered with a continuous vapor retarder. Joints of the vapor retarder shall overlap by 6 inches (152 mm) and shall be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches (152 mm) up the stem wall and shall be attached and sealed to the stem wall; and
2. One of the following is provided for the under-floor space:
   2.1. Continuously operated mechanical exhaust ventilation at a rate equal to 1 cfm (0.47 L/s) for each 50 ft^2 (4.7 m^2) of crawlspace floor area, including an air pathway to the common area (such as a duct or transfer grille), and perimeter walls insulated in accordance with Section N1102.2.8;
   2.2. Conditioned air supply sized to deliver at a rate equal to 1 cfm (0.47 L/s) for each 50 ft^2 (4.7 m^2) of under-floor area, including a return air pathway to the common area (such as a duct or transfer grille), and perimeter walls insulated in accordance with Section N1102.2.8;

2.3. Plenum complying with Section M1601.4, if under-floor space is used as a plenum.

R408.4 Access. Access shall be provided to all under-floor spaces. Access openings through the floor shall be a minimum of 18 inches by 24 inches (457 mm by 610 mm). Openings through a perimeter wall shall be not less than 16 inches by 24 inches (407 mm by 610 mm). When any portion of the through-wall access is below grade, an areaway not less than 16 inches by 24 inches (407 mm by 610 mm) shall be provided. The bottom of the areaway shall be below the threshold of the access opening. Through wall access openings shall not be located under a door to the residence. See Section M1305.1.4 for access requirements where mechanical equipment is located under floors.

R408.5 Removal of debris. The under-floor grade shall be cleaned of all vegetation and organic material. All wood forms used for placing concrete shall be removed before a building is occupied or used for any purpose. All construction materials shall be removed before a building is occupied or used for any purpose.

R408.6 Finished grade. The finished grade of under-floor surface may be located at the bottom of the footings; however, where there is evidence that the groundwater table can rise to within 6 inches (152 mm) of the finished floor at the building perimeter or where there is evidence that the surface water does not readily drain from the building site, the grade in the under-floor space shall be as high as the outside finished grade, unless an approved drainage system is provided.

R408.7 Flood resistance. For buildings located in areas prone to flooding as established in Table R301.2(1):

1. Walls enclosing the under-floor space shall be provided with flood openings in accordance with Section R324.2.2.
2. The finished ground level of the under-floor space shall be equal to or higher than the outside finished ground level.

Exception: Under-floor spaces that meet the requirements of FEMA/FIA TB 11-1.

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us		Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: Mike Toalson Representing: Home Builders Association of Virginia

Address: 707 East Franklin Street, Richmond, VA 23219 Phone No.: (804) 643-2797

Regulation Title: Proposed 2006 USBC Section No(s): IRC R613.2

Proposed Change:

R613.2 Window sills. In dwelling units, where the opening of an operable window is located more than 72 inches (1829 mm) above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of ~~24 inches (610 mm)~~ 18 inches (457 mm) above the finished floor of the room in which the window is located. Glazing between the floor and ~~24 inches (610 mm)~~ 18 inches (457 mm) shall be fixed or have openings through which a 4-inch-diameter (102 mm) sphere cannot pass.

(Exceptions remain the same)

Supporting Statement:

The change modifies new requirements contained in the 2006 IRC which prohibit window openings lower than 24 inches off of the floor. The modification is to permit window openings to be only six inches lower than the new requirements (from 24 inches to 18 inches). This allowance will permit the placement of windows in a more traditional manner while still providing safeguards against accidents and is consistent with when glazing is considered to be in a hazardous location under the IRC.

RE: 2006 Virginia uniform Statewide Building Code- Recommended Amendment

January 19, 2006

Dear Mr. Hodge,

Winchester Homes, Inc would like to submit the following recommend amendments for consideration and incorporation into the 2006 edition of the Virginia uniform Statewide Building Code. Thank you for your consideration of this matter. If you should need to contact me please don't hesitate to either e-mail me or call me directly at (410) 365-7781.

Sincerely,

Winchester Homes, Inc.
By Randall K. Melvin
Director Codes and Construction Risk

cc: Mr. Denis Mitchell Loudoun County, Virginia
Mr. Lynch Fairfax and Mr. Chris McArtor Fairfax County, Virginia
Mr. Eric Mays Prince William County, Virginia
Mr. Jim Williams NVBIA

Virginiacodeammendmentrequest22006.doc

Issue: Window Sill Height

2006 IRC Section: R613.2 Window sills

Recommended Amendment: Delete text as follows

~~**R613.2 Window sills.** In dwelling units, where the opening of an operable window is located more than 72 inches (1829mm) above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches (610 mm) above the finished floor of the room in which the window is located. Glazing between the floor and 24 inches(610 mm) shall be fixed or have openings through which a 4" diameter (102 mm) sphere cannot pass~~

~~Exceptions:~~

~~1. Windows whose openings will not allow a 4" diameter (102 mm) sphere to pass through the opening when the opening is in its largest opened position.~~

~~2. Openings that are provided with window guards that comply with ASTM F 2006 or F 2090.~~

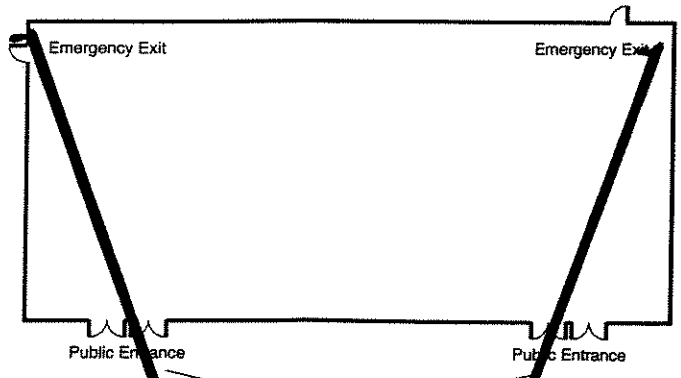
Reason:

This requirement is not based on sound technical information that adequately substantiates that such a requirement will result in any improvement in protecting small children form window falls. There is no documented relationship between center of gravity, window sill height and falls from windows and therefore no basis for establishing what is " too low," what and adequate medium is, the role the window sill height plays, especially in relation to other relevant factors or that there is even a need for such a requirement.

The assumption that a minimum window sill height of 24" will have a significant impact on reducing window falls of infants and younger children is just that-an assumption, and one that is based on limited data to support that assumption. Furthermore, there has been no discussion or apparent consideration for unintended consequences that may result form this requirement, such as encouraging climbing near windows which is a significant factor in window falls involving children.

Of the interests weighing in on the issue such as the National Safety Council, American Association of Pediatrics, consumer Products Safety Commission, the Timothy Healy Foundation, and other national, state and local agencies and organizations, regarding children falling from windows, there has been little to no discussion or concerns raised with respect to window sill height being a significant factor in these falls and no advocacy efforts on their part, that we are aware of, to establish minimum sill heights in building codes. Given the great deal of attention these organizations have given the matter, their omission of window sill height in any of their recommendations is not an oversight. They instead focus on preventive measures that have proven to be very successful such as the use of operable window guards and stops and community outreach and education about window safety.

The international code Council, National Association of Home Builders, National Safety Council and other interests are all currently working together to improve window safety awareness. This course of action will assuredly contribute to reducing the number of falls from window as opposed to setting a minimum requirement with only theoretical gains.



Accessible Entrances

Total Number of Public Entrances	Minimum Required Number of Accessible Public Entrances
1	1
2	2
3	2
4	3

use as a public entrance can be eliminated. In addition, the provisions of IBC Section 1109.7 allow for the use of a platform lift in those cases where existing exterior site constraints make it difficult to use a ramp to create an accessible entrance.

International Residential Code

Subject: definition of accessory structure

Change type: modification

ACCESSORY STRUCTURE. ~~In one- and two-family dwellings not more than three stories high with separate means of egress, a building~~ A structure not greater than 3,000 square feet (279 m²) in floor area, and not over two stories in height, the use of which is customarily accessory to and incidental to that of the ~~main building~~ dwelling(s) and which is located on the same lot.

Significance: By deleting the redundant language related to scoping and adding specific criteria, the 2006 *International Residential Code* (IRC) provides a comprehensive definition of accessory structures applicable to one- and two-family dwellings as well as townhouses that fall under the jurisdiction of the code. The new definition places a size limitation of 3,000 square feet and a story limitation of two stories, and emphasizes that these buildings are subordinate to the dwellings by addition of the word "accessory." Buildings larger than the limitations provided in the definition will no longer be considered accessory to dwellings, and their use must be evaluated for deciding whether they fall under the IRC scoping authority or must be regulated by the IBC.

Subject: protection against fall from windows

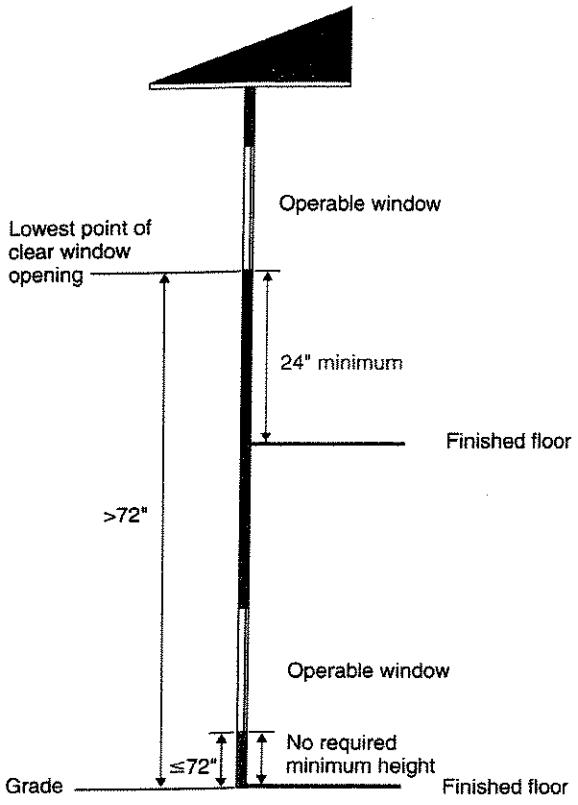
Change Type: addition

R613.2 Window sills. In dwelling units, where the opening of an operable window is located more than 72 inches (1829 mm) above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches (610 mm) above the finished floor of the room in which the window is located. Glazing between the floor and 24 inches (610 mm) shall be fixed or have openings through which a 4-inch-diameter (102 mm) sphere cannot pass.

Exceptions:

1. Windows whose openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the opening is in its largest opened position.
2. Openings that are provided with window guards that comply with ASTM F 2006 or F 2090.

Significance: This new section is intended to reduce the number of falls through exterior windows for small children. Windows adjacent to exterior finished grade with more than a 72-inch difference in elevation from the window opening to such finished grade must have sills at least 24 inches above the floor of the room where the window is located or the window



Minimum Window Sill Height

opening must be protected with devices similar to a guardrail that will prevent the passage of a 4-inch sphere.

The new language is applicable to every window in exterior walls, regardless of the room in the dwelling where the window is located, and as such requires additional attention with regard to the emergency egress and rescue windows required in sleeping rooms. The referenced ASTM International documents are its "Standard Safety Specification for Window Fall Prevention Devices for Non-Emergency Escape (Egress) and Rescue (Ingress) Windows" and "Specification for Window Fall Prevention Devices with Emergency Escape (Egress) Release Mechanisms," respectively. ◆

Excerpted from Significant Changes to the 2006 International Building Code *and* Significant Changes to 2006 International Residential Code.

The Significant Changes *series of books have been developed by ICC and published by Thomson-Delmar Learning to accommodate the transition from the 2003 editions of the I-Codes to the 2006 editions. To purchase* Significant Changes to the 2006 International Building Code, Significant Changes to 2006 International Residential Code *or other books in the series, visit the ICC website at* www.iccsafe.org.

be regulated by the Virginia Department of Health.

8. Change Section R310.1 to read:

R310.1 Emergency escape and rescue required. Basements and each sleeping room designated on the construction documents shall have at least one openable emergency escape and rescue opening. Such opening shall be directly to the exterior of the building or to a deck, screen porch or egress court, all of which shall provide access to a public street, public alley or yard. Where emergency escape and rescue openings are provided, they shall have a sill height of not more than 44 inches (1118 mm) above the floor. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section R310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside, except that tilt-out or removable sash designed windows shall be permitted to be used. Emergency escape and rescue openings with a finished height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2.

Exceptions:

1. Dwelling units equipped throughout with an approved automatic sprinkler system installed in accordance with NFPA 13, 13R or 13D.
2. Basements used only to house mechanical equipment and not exceeding total floor area of 200 square feet (18.58 m2).

9. Change Section R310.1.1 to read:

R310.1.1 Minimum opening area. All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.530 m^2), including the tilting or removal of the sash as the normal operation to comply with sections R310.1.2 and R310.1.3.

Exception: Grade floor openings shall have a minimum net clear opening of 5 square feet (0.465 m^2).

10. Change Section R311.4.3 to read:

R311.4.3 Landings at doors. There shall be a floor or landing on each side of each exterior door. The width of each landing shall not be less than the door served. Every landing shall have a minimum dimension of 36 inches (914 mm) measured in the direction of travel.

Exception: Where a stairway of two or fewer risers is located on the exterior side of a door, other than the required exit door, a landing is not required for the exterior side of the door.

11. Add Section R311.4.3.1 to read:

R311.4.3.1 Elevation of landing. The floors or landings at both sides of any exterior door shall not be more than 1-1/2 inches (38 mm) lower than the top of the threshold.

Exception: The floor or landing at the exterior side of any exterior door shall have a rise no greater than permitted in Section R311.5.3 provided the door, other than an exterior storm or screen door, does not swing over the landing.

12. Change Section R311.5.3.1 to read:

R311.5.3.1 Riser height. The maximum riser height shall be 8-1/4 inches (210 mm). The riser shall be measured vertically between the leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

13. Change Section R311.5.3.2 to read:

R311.5.3.2 Tread depth. The minimum tread depth shall be 9 inches (229 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The

monumental stairs, handrails shall be located along the most direct path of egress travel. Projection from the intermediate handrail into the stairs passageway must not exceed the size of a single handrail. A double handrail is not allowed in the intermediate handrail.

Reason: The purpose is to maintain the 44" minimum required stairway width called for in Section 1003.3.3.1" and F1010.13 and enough egress capacity along stair passageway. This will also permit two lanes of travel on either side of an intermediate handrail.
The purpose of suggesting disallowance of double grab bar handrails is that normally they project into the lane of travel from each side thereby reducing the 44" minimum required stairway width and capacity. This will prevent designers from arguing whether there is any code preventing them from installing double grab bar handrails.

Cost Impact: The code change proposal will not increase the cost of construction.

Public Hearing: Committee: AS AM D
Assembly: ASF AMF DF

E96–06/07

1013.1, 1013.1.1 (New), 1013.2, 1013.3, 1013.5, 1013.6 (IFC [B] 1013.1, [B] 1013.1.1 (New), [B]1013.2, [B] 1013.3, [B] 1013.5, [B] 1013.6); IRC R312.1, R312.2 (New), R312.2

Proponent: Paul K. Heilstedt, P.E., Chair, representing ICC Code Technology Committee (CTC)

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS AND THE IRC BUILDING/ENERGY CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IBC

Revise as follows:

SECTION 1013.0
GUARDS

1013.1 Where required. Guards shall be located along open-sided walking surfaces, including mezzanines, industrial equipment platforms, ~~stairways~~, stairs, ramps and landings, that are located more than 30 inches above the floor or grade below. Guards shall be adequate in strength and attachment in accordance with Section 1607.7. ~~Where glass is used to provide a guard or as a portion of the guard system, the guard shall also comply with Section 2407. Guards shall also be located along glazed sides of stairways, ramps and landings that are located more than 30 inches (762 mm) above the floor or grade below where the glazing provided does not meet the strength and attachment requirements in Section 1607.7.~~

Exception: Guards are not required for the following locations:

1. On the loading side of loading docks or piers.
2. On the audience side of stages and raised platforms, including steps leading up to the stage and raised platforms.
3. On raised stage and platform floor areas such as runways, ramps and side stages used for entertainment or presentations.
4. At vertical openings in the performance area of stages and platforms.
5. At elevated walking surfaces appurtenant to stages and platforms for access to and utilization of special lighting or equipment.
6. Along vehicle service pits not accessible to the public.
7. In assembly seating where guards in accordance with Section 1025.14 are permitted and provided.

1013.1.1 Glazing. Where glass is used to provide a guard or as a portion of the guard system, the guard shall also comply with Section 2407. Where the glazing provided does not meet the strength and attachment requirements in Section 1607.7, complying guards shall also be located along glazed sides of open-sided walking surfaces.

1013.2 Height. Guards shall form a protective barrier not less than 42 inches high, measured vertically above the adjacent walking surfaces, adjacent fixed seat-boards or the line connecting the leading ~~edge~~ edges of the ~~tread~~ treads ~~, adjacent walking surface or adjacent seat board~~.

Exceptions:

1. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, ~~guards whose top rail also serves as a handrail shall have a height not less than 34 inches and not more than 38~~

~~inches measured vertically from the leading edge of the stair tread nosing.~~ guards on the open sides of stairs shall have a height not less than 34 inches measured vertically from a line connecting the leading edges of the treads.

2. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be not less than 34 inches and not more than 38 inches measured vertically from a line connecting the leading edges of the treads.

~~2.~~ 3. The height in assembly seating areas shall be in accordance with Section 1025.14.

1013.3 Opening limitations. ~~Open~~ Guards shall ~~have balusters or ornamental patterns such that a~~ not have openings which allow passage of a sphere 4-~~inch~~ inches ~~diameter sphere~~ in diameter from the walking surface to the required guard height ~~cannot pass through any opening up to a height of 34 inches. From a height of 34 inches to 42 inches (1067 mm) above the adjacent walking surfaces, a sphere 8 inches in diameter shall not pass.~~

Exceptions:

1. From a height of 36 inches to 42 inches (1067 mm), guards shall not have openings which allow passage of a sphere 4-3/8 inches in diameter.

~~1.~~ 2. The triangular openings at the open sides of a stair, formed by the riser, tread and bottom rail, ~~at the open side of a stairway~~ shall ~~be of a maximum size such that a sphere of 6 inches in diameter cannot pass through the opening.~~ not allow passage of a sphere 6 inches in diameter.

~~2~~ 3. At elevated walking surfaces for access to and use of electrical, mechanical or plumbing systems or equipment, guards shall ~~have balusters or be of solid materials such that a sphere with a diameter of 21 inches cannot pass through any opening.~~ not have openings which allow passage of a sphere 21 inches in diameter.

~~3.~~ 4. In areas which are not open to the public within occupancies in Group I-3, F, H or S, ~~balusters, horizontal intermediate rails or other construction shall not permit a sphere with a diameter of 21 inches to pass through any opening.~~ guards shall not have openings which allow passage of a sphere 21 inches in diameter.

~~4.~~ 5. In assembly seating areas, guards at the end of aisles where they terminate at a fascia of boxes, balconies and galleries shall ~~have balusters or ornamental patterns such that a~~ not have openings which allow passage of a sphere 4 ~~inch~~ inches in diameter ~~sphere cannot pass through any opening~~ up to a height of 26 inches (660 mm). From a height of 26 inches to 42 inches above the adjacent walking surfaces, guards shall not have openings which allow passage of a sphere 8 inches in diameter ~~shall not pass~~.

~~5.~~ 6. Within individual dwelling units and sleeping units in Group R-2 and R-3 occupancies, ~~openings for required guards on the sides of stair treads shall not allow a sphere of 4-3/8" to pass through.~~ guards on the open sides of stairs shall not have openings which allow passage of a sphere 4-3/8 inches in diameter.

1013.4. Screen porches. (No change to current text)

1013.5 Mechanical equipment. Guards shall be provided where appliances, equipment, fans, roof hatch openings or other components that require service are located within 10 feet of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches above the floor, roof or grade below. The guard shall be constructed so as to prevent the passage of a sphere 21 ~~inch~~ inches in diameter ~~sphere~~. The guard shall extend not less than 30 inches beyond each end of such appliance, equipment, fan or component.

1013.6 Roof access. Guards shall be provided where the roof hatch opening is located within 10 feet of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches above the floor, roof or grade below. The guard shall be constructed so as to prevent the passage of a sphere 21 ~~inch~~ inches in diameter ~~sphere~~

PART II – IRC

SECTION R312
GUARDS

R312.1 Where ~~Guards~~ required. ~~Porches, balconies, ramps or raised walking floor surfaces located more than 30 inches above the floor or grade below shall have guards not less than 36 inches in height. Open sides of stairs with a total rise of more than 30 inches above the floor or grade below shall have guards not less than 34 inches in height measured vertically from the nosing of the treads.~~ Guards shall be located along open-sided walking surfaces, including porches, decks, balconies, mezzanines, stairs, ramps and landings, which are located more than 30 inches above the floor or grade below. Insect screening shall not be considered as a guard.

~~Porches and decks which are enclosed with insect screening shall be equipped with guards where the walking surface is located more than 30 inches above the floor or grade below.~~

R312.2 Height. Guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches high measured vertically above the adjacent walking surface, adjacent fixed seat-boards or the line connecting the leading edges of the treads.

Exceptions:

1. Guards on the open sides of stairs shall have a height not less than 34 inches measured vertically from a line connecting the leading edges of the treads.

2. Where the top of the guard also serves as a handrail on the open sides of stairs, the top of the guard shall not be not less than 34 inches and not more than 38 inches measured vertically from a line connecting the leading edges of the treads.

~~R312.2~~ R312.3 ~~Guard~~ **Opening limitations.** ~~Required~~ Guards ~~on open sides of stairways, raised floor areas, balconies and porches~~ shall not have openings ~~intermediate rails or ornamental closures~~ which ~~do not~~ allow passage of a sphere 4 inches ~~or more~~ in diameter from the walking surface to the required guard height.

Exceptions:

1. The triangular openings at the open side of a stair, formed by the riser, tread and bottom rail of a guard, ~~at the open side of a stairway~~ shall ~~are permitted to be of such a size that a sphere 6 inches cannot pass through.~~ not allow passage of a sphere 6 inches in diameter.
2. ~~Openings for required guards on the open sides of stair treads stairs shall not allow passage of a sphere 43/8 inches or more in diameter to pass through~~ Guards on the open sides of stairs shall not have openings which allow passage of a sphere 4-3/8 inches in diameter

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: http://www.iccsafe.org/cs/cc/ctc/index.html. Since its inception, the CTC has held six meetings - all open to the public.

This proposed change is a result of the CTC's investigation of the area of study entitled "Climbable Guards". The scope of the activity is noted as:

The study of climbable guards will focus on determining the need for appropriate measures to prevent or inhibit an individual from utilizing the elements of a guard system, including rails, balusters and ornamental patterns, to climb the guard, thereby subjecting that person to the falling hazard which the guard system is intended to prevent.

The general focus of these two proposals, one to the IBC and one to the IRC, is to create consistency in language regulating guards in the two codes.

Part I – IBC

IBC 1013.1.Editorial. Laundry lists of items in the code are typically not all-inclusive. The word "including" provides this clarification in the following sections as well. This section is divided into two paragraphs with the second paragraph dealing with glass and glazing without a change in intent.

IBC 1013.2: The technical portion of this change is the change which identifies that a fixed seat becomes a potential walking surface to a child and thus warrants the guard height to be measured from that point. The remainder does not change the intent but rather provides standardized text dealing with stair treads and the determination of how to measure guard height.

IBC 1013.3: The majority of the revision in this section and exception involve editorial rewording of the sentences for clarity and consistency. The technical change is to reduce the maximum opening (8" to 4-3/8" inches) for this upper portion of the guard above 36 inches.

The 8 inch limitation on openings at the upper section of the guard was based on the difference between the 34 inch height being the part of the guard that protects small children and the 42 inch height for the rest of the population. However this does not take into account that residential R-3 use groups require a minimum guard height of 36 inches. Proposed exception 1 raises the height for which the 4 inch opening requirement is applicable - to coincide with the minimum guard height of 36 inches in residential occupancies.

The change in maximum opening size at the upper portion of the guard, from the current 8 inch sphere criteria to a 4-3/8 inch sphere, is based on providing an equivalent level of protection as that provided by the current 4 inch opening on the lower portion of the guard. As a point of reference, the following measurements of head sizes of infants are excerpted from Drawing #2 Measurement of Infants from a book entitled "The Measure of Man and Woman: Human Factors" by Alvin R. Tilley, first published by Whitney Library of Design in 1993, republished and copyrighted by John Wiley & Sons, New York (ISBN 0-471-09955-4) in 2002.

The publication states "We have chosen to accommodate 98% of the U.S. population, which lies between the 99 percentile and the 1 percentile, for product designs for civilians" page 10-11 headlined percentiles.

Age	Side-to-side measurement	Back-to-front measurement
12-15 months:	5"	6.5"
16-19 months:	5"	6.5"
20-23 months:	5.1"	6.8"

Additional point of reference, from the same book entitled "The Measure of Man and Woman: Human Factors" by Alvin R. Tilley, figure number 8, page 14, showing child age 2.5 – 3 years. The chest dimension when scaled (1" = 12") shows a 4-3/4" dimension from the back to the front.

The following information from various resources has been compiled to illustrate how countries outside of the US are regulating the openings in guards:

Country of Origin	Sphere Rule Metric	Sphere Rule Inches
Canada	100mm	3.94"
United Kingdom	100mm	3.94"
United States	102mm	4"
Australia	125mm	4.92"
Germany	120mm	4.72"
France	110mm	4.33"
Mexico (no code – standard followed)	102mm – 152mm	4" – 6"
Russia	100mm	3.94"
Romania	100mm	3.94"
Trinidad & Tobago	102mm	4"
Japan (Confirmation Pending)	125mm	4.92"
Spain (Confirmation Pending)	(120mm) (125mm)	(4.72") (4.92")
Switzerland	120mm	4.72"
Sweden	100mm	3.94"
Taiwan (Confirmation Pending)	125mm	4.92"
Singapore (Confirmation Pending)	125mm	4.92"
Poland (Confirmation Pending)	100mm	3.94"
Turkey	100 mm	3.94"
Netherlands (Confirmation Pending)	100mm	3.94"

Part II - IRC

IRC R312.1: This section is being divided into two sections, similar to the IBC. The first section includes the general guard requirement, and the new section (R312.2) includes the height requirements.

IRC R312.2: This new section includes the guard height requirements. It is reformatted to place emphasis on the 36" high guard required at level surfaces. There are not technical changes to the minimum height. This section does include an added phrase - "or adjacent seatboard" – intended to clarify that where there is built-in seating, the guard height is to measured from the seat itself to provide for the minimum required height where it is assumed that children may be standing.

IRC R312.3: The majority of the revision in this section and exception involve editorial rewording of the sentences for clarity and consistency.

Bibliography:

Interim Report No. 1 of the CTC, Area of Study – Climbable Guards, March 9, 2006.
"The Measure of Man and Woman: Human Factors" by Alvin R. Tilley

Cost Impact: The code change proposal will not increase the cost of construction.

PART I - IBC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

PART II - IRC

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

E97–06/07

1013.1 (IFC [B] 1013.1); IRC R312.1

Proponent: Thomas B. Zuzik, Jr., Artistic Railings, Inc., representing himself

THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS AND THE IRC BUILDING/ENERGY CODE DEVELOPMENT COMMITTEES. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I – IBC

Revise as follows:

1013.1 Where required. Guards shall be located along open-sided walking surfaces, mezzanines, industrial equipment platforms, stairways, ramps and landings which are located more than 30 inches (762 mm) above the floor or grade below, measured vertically from the edge height of the open-side to the deepest point no more than 24 inches (610 mm) horizontal off the open-side edge. Guards shall be adequate in strength and attachment in accordance with Section 1607.7. Where glass is used to provide a guard or as a portion of the guard system, the guard shall also comply with Section 2407. Guards shall also be located along glazed sides of stairways, ramps and landings that are located more than 30 inches (762 mm) above the floor or grade below. Where the glazing provided does not meet the strength and attachment requirements in Section 1607.7.

Exception: Guards are not required for the following locations:

1. On the loading side of loading docks or piers.

Hodge, Vernon

From: Rodgers, Emory
Sent: Monday, February 12, 2007 9:37 AM
To: Hodge, Vernon; Dean, Glenn; Bajnai, Charles; Robertson, Roger; Foley, Brian
Subject: FW: Proposed Code Changes for VA
Importance: High
Attachments: 070209 WTCA Comment VA R602.10.doc; 070209 WTCA Comment VA R802.10.5 & R802.11.doc; 070209 WTCA Comment VA TR301.5.doc; 070209 WTCA Comment VA R404.1.doc

All: Comments? R602.10 believe our Va. EZ version addresses and not sure on R802 and T301.5. Thought R404 that Jim M-PCA has fixed by deletion instead of new text? Vernon add as part of Work Book II for handout on the 20th with any other code changes so stakeholders and board has to consider next 6 months.

From: Richard Zimmermann [mailto:rzimmermann@qualtim.com]
Sent: Monday, February 12, 2007 9:23 AM
To: Bhcd; Rodgers, Emory
Cc: Kirk Grundahl
Subject: Proposed Code Changes for VA
Importance: High

Comments or proposals are submitted on the following International Residential Code Sections.

Table R301.5 – revisions accepted for IRC-09
R404.1 – suggestion to return to IRC-03 requirements
R802.10.5 & R802.11 & Table R802.11 – truss/rafter uplift – revised requirements + replacement Table
R602.10 – support of FSC code change

If you have any questions, please feel free to contact me at the direct phone number listed below, or Kirk Grundahl at the number listed on the code proposals.

We appreciate your consideration.

Richard Zimmermann
Technical Education and Codes Manager
WTCA - Representing the Structural Building Components Industry
608/310-6743 (direct), 608/358-0766 (cell), 608-274-3329 (fax)
http://www.sbcindustry.com

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us		Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: ____Kirk Grundahl, P.E._____ Representing: ___WTCA_____

Address: __6300 Enterprise Lane, Madison, WI 53719_____ Phone No.: _ 608/274-4849_____

Regulation Title: __2003 USBC (residential buildings)_____ Section No(s): __R602.10_____

Proposed Change:

Add a new Section R602.10.1.2 to USBC (following IRC 2006 format) and revise subsequent section numbering as follows:

R602.10.1.2 Braced wall lines containing garage door openings. Walls of attached or detached garages shall be braced in accordance with Section R602.10.1. Where wall segments to either side of a garage opening are too narrow to permit use of bracing methods in Section R602.10.3, the wall line containing the garage opening shall be braced in accordance with Section R602.10.5, R602.10.6, or other approved method.

Exceptions: One of the following exceptions shall be permitted to apply to garage opening wall bracing for attached or detached garages in Seismic Design Categories A-C and where wind speeds are 100 mph or less.

1. When a garage opening wall of an attached garage is a part of a braced wall line that extends along an attached building, such braced wall line shall contain the amount of bracing required by Section R602.10.1 and one of the braced wall panels required to begin within 12.5 feet of each end of the braced wall line shall be permitted to begin no more than 21 feet from the end of the braced wall line containing the garage opening.
2. If a garage opening wall of an attached or detached garage is considered as a separate braced wall line and the width of the garage (measured parallel to the garage opening wall) is at least 0.8 times the depth of the garage, then no bracing shall be required on the garage opening wall line provided the amount of bracing in the rear garage wall line (opposite and parallel to the garage opening) is increased by the amount of bracing that originally would have been required within the garage opening wall line. Amount of bracing in and spacing of wall lines comprising the garage side walls (perpendicular to the garage opening wall line) shall comply with Section R602.10.1 and R602.10.1.1.

WTCA – Representing the Structural Building Components Industry would like to add its support to this code modification as submitted by Jay Crandell on behalf of the Foam Sheathing Coalition.

Thank you for your consideration of this public comment. Should you have any questions please contact Richard Zimmerman (608-310-6743) or me.

Respectfully Yours,

Kirk Grundahl, P.E.
Executive Director

Supporting Statement:

The treatment of bracing for garage opening wall lines has created some confusion and unnecessary difficulty in complying with the IRC bracing provisions. Therefore, this proposed new section specifically addresses requirements for bracing of wall lines that contain garage door openings. In addition, two exceptions are provided for low hazard conditions that provide acceptable means of achieving the wall bracing intent of the code in a manner that also agrees with past successful practice.

The first exception addresses conditions where the garage opening wall line is part of a braced wall line that extends further along the building (e.g., a street facing building wall with a street facing garage wall that are not offset by more than 4 feet maximum out-to-out of offsets). In this case, required bracing amounts must be provided for the braced wall line, but the corner brace is permitted to be placed up to 21 feet from one end of the braced wall line (based on maximum center to center panel spacing of 25 feet less the minimum 4-foot panel width). This exception does not reduce the total amount of bracing required.

The second exception (see also the Figure below for example) provides a means of bracing a garage as a structural unit and does not require bracing on the garage opening wall line. This requires that the bracing amount is effectively doubled on the rear garage wall (opposite from the garage opening) to provide equivalent resistance to the direct shear load. Because this arrangement creates a torsional loading condition, the side walls must also be adequately braced to resist the torsional or twisting load that is created by way of a "force couple". This is simply achieved by bracing both side walls in compliance with bracing requirements of Section R602.10.1 and by limiting the plan aspect ratio of the garage (depth to width) as described in the proposal. This method is not new and has been in use for some time, but only by way of an engineered solution for individual buildings. Because of its simplicity and common need/use, this approach is more effectively addressed as a prescriptive solution in the code. This exception does not reduce bracing strength but achieves compliance through a different approach to building stability and lateral load analysis that more accurately distributes lateral load based on relative resistance of shear walls through floor and roof systems that act as rigid diaphragms based on whole building testing. The approach is explained and illustrated below.

Analysis Approach and Example for Exception #2:

Consider a garage of width, W, and Depth, D with a garage opening located in the width direction (see Figure below). The lateral load acting parallel to the garage opening and rear walls is resisted directly by wall bracing in the rear garage wall only (bracing value of narrow walls to either side of garage opening is considered negligible). This realistic loading condition creates a force couple or moment that attempts to rotate the garage opening wall about the rear wall that contains all of the shear resistance (bracing). The magnitude of this force couple is V x ½ D where V is the lateral load force (and is equivalent also to the amount of load resistance required in the way of wall bracing). While the direct shear force is resisted by the rear garage wall, the force couple is resisted by the side walls which produce a resisting force couple with a magnitude of Vsw x W. Therefore, to maintain equilibrium of forces Vsw x W must equal or exceed V x ½ D, where Vsw is the bracing resistance provide by the garage sidewalls. Setting these equal and solving for Vsw (required shear resistance in the side walls to resist the load force couple), the following design equation is determined to check equilibrium against the force couple or torsional moment created by this condition:

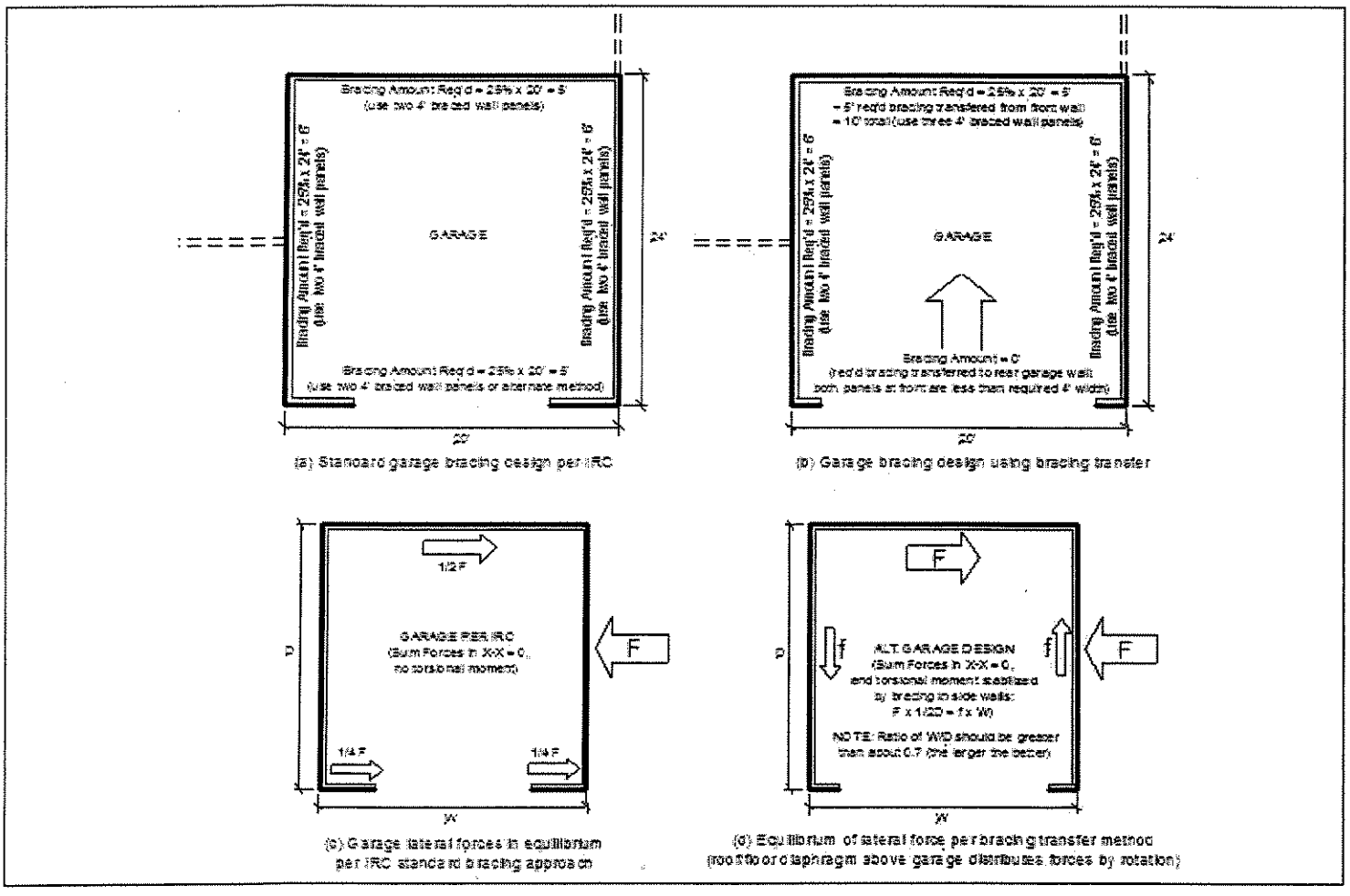
$$Vsw \geq \frac{1}{2} V \times D/W$$

Given:
Garage supporting one story plus roof (approach also applies to other support conditions)
Wind Speed: <110 mph
Seismic: SDC C
Show use of Method 3 and other bracing methods

Example Garage Plans	Garage Size		D/W	Bracing % Req'd (IRC Table R602.10.1)	Req'd Bracing Length (IRC R602.10.1)		Bracing per Proposed Exception #2			Check Sidewall Bracing for Torsion Load	
	D	W			Sidewalls (D x %)	Rear and Front Walls (W x %)	Side wall (Lsw)	Rear Wall (Lrw)	Front Wall	½ Lrw x D/W	Is Lsw ≥ ½ Lrw x D/W ?
Ex #1	22'	18'	1.2	30% (method 3) 45% (others)	6.6' 9.9'	5.4' 8.1'	6.6' 9.9'	10.8' 16.2'	None None	6.5' 9.7'	6.6'> 6.5' OK 9.9' >9.7' OK
Ex #2	22'	30'	0.7	30% (method 3) 45% (others)	6.6' 9.9'	9' 13.5'	6.6' 9.9'	18' 27'	None None	6.3' 9.5'	6.6'>6.3' OK 9.9'>9.5' OK

Note: Front wall contains the garage opening.

As shown above, when D/W is approximately 1.2 or less, this proposal that permits transfer of bracing from the garage opening wall to the rear garage wall (effectively doubling bracing amount in the rear garage wall) results in a structurally stable building or garage provided side walls area also braced in accordance with the code.



DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us		Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: ____Kirk Grundahl, P.E._____ Representing: ___WTCA_____

Address: __6300 Enterprise Lane, Madison, WI 53719_____ Phone No.: _ 608/274-4849_____

Regulation Title: __2003 USBC (residential buildings)_____ Section No(s): __R802.10.5 & R802.11_____

Proposed Change:

1. REVISE AS FOLLOWS:

~~**R802.10.5 Truss to wall connection.** Trusses shall be connected towall plates by the use of approved connectors having a resistance to uplift of not less than 175 pounds (779 N) and shall be installed in accordance with the manufacturer's specifications. For roof assemblies subject to wind uplift pressures of 20 pounds per square foot (960 Pa) or greater, as established in TableR301.2(2), adjusted for height and exposure per Table R301.2(3), see section R802.11.~~

R802.11 Roof tie-down.

R802.11.1 Uplift resistance. ~~Roof assemblies which are subject to wind uplift pressures of 20 pounds per square foot (960 Pa) or greater shall have roof rafters or trusses attached to their supporting wall assemblies by connections capable of providing the resistance required in Table R802.11.Wind uplift pressures shall be determined using an effective wind area of 100 square feet (9.3 m2) and Zone 1 in Table R301.2(2), as adjusted for height and exposure per Table R301.2(3).~~

Roof assemblies shall have roof rafters or trusses attached to their supporting wall assemblies by connections capable of providing the resistance required in Table R802.11. Roof ties shall not be required when required strength values per Table R802.11, including applicable adjustments, do not exceed 185 lbs using 2-16d toe-nails per Table R602.3(1) or 280 lbs using 3-16d toe-nails per rafter or truss connection to wall plate.

Exception: For trusses designed per Section R802.10.1, the connections shall resist the uplift force, if any, specified on the Truss Design Drawing or as specified by the registered design professional. The uplift force need not exceed the values in Table R802.11 as applicable to clear span uniformly spaced trusses.

When roof ties are required by this section, ~~A~~a continuous load path shall be provided to transmit the uplift forces from the rafter or truss ties to the foundation in accordance with footnote e of Table R802.11.

2. DELETE TABLE R802.11 AND SUBSTITUTE AS FOLLOWS:

TABLE R802.11
REQUIRED STRENGTH OF TRUSS OR RAFTER CONNECTIONS TO RESIST WIND UPLIFT FORCES
(Pounds per connection)

Basic Wind Speed	Roof Uplift Reaction Force (lbs)						
	Roof Span (feet)						
	12	20	24	28	32	36	40
Roof Slopes <= 4:12							
85	86	115	130	145	160	175	189
90	114	155	176	197	218	239	260
100	174	243	277	311	346	380	414
110	241	339	388	437	486	536	585
Roof Slope 5:12							
85	35	42	45	48	51	54	57
90	57	73	81	88	96	104	112
100	104	141	159	177	195	213	231
110	156	215	245	274	304	334	363
Roof Slope 6:12							
85	0	0	0	0	0	0	0
90	8	9	9	10	10	11	11
100	44	62	71	80	89	98	107
110	83	120	138	157	175	194	212
Roof Slopes >=7:12							
85	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 0.447 m/s, 1 pound/foot = 14.5939 N/m, 1 pound = 0.454 kg.

a. The uplift connection requirements are based on a 30 foot mean roof height located in Exposure B. For Exposures C and D and for other mean roof heights, multiply the above loads by the Adjustment Coefficients in Table R301.2(3).

b. The uplift connection requirements are based on the framing being spaced 24 inches on center. Multiply by 0.67 for framing spaced 16 inches on center and multiply by 0.5 for framing spaced 12 inches on center.

c. The uplift connection values require a minimum of 10 pounds per square foot of roof/ceiling dead load.

d. The uplift connection requirements account for overhangs not exceeding 24 inches.

e. For wall-to-wall and wall-to-foundation connections, the capacity of the uplift connector is permitted to be reduced by 100 pounds for each full wall above. (For example, if a 600-pound rated connector is used on the roof framing, a 500-pound rated connector is permitted at the next floor level down).

REASON:

WTCA believes that code sections R802.10.5 and R802.11, along with Table R802.11, require improvement and have submitted a comment for consideration at the upcoming ICC Final Action Hearings proposing a similar revision.

The above modifications to RB265 simplify the roof uplift connection provisions, clarify when conventional framing connections provide adequate uplift resistance and load path, increase the nailing required for conventional roof-to-wall connections for added strength, and update uplift resistance requirements based on ASCE 7-05 low-rise building wind load provisions.

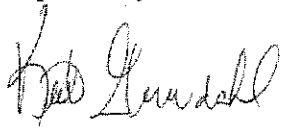
The uplift value of 280 lbs for 3-16d toe-nails and 185 lbs for 2-16d toe-nails is based on an evaluation of more than 120 roof assembly uplift tests conducted by State Farm Insurance, Clemson University (FEMA/Project Blue Sky), and USDA Forest Products Laboratory. This data is available and the evaluation of this data (prepared by ARES Consulting, Jay Crandell, P.E.) has been shared with various individuals and proponents of RB264, RB265, and RB268 in relation to the wind uplift issue. The safety margins used to determine these toe-nail values provide a level of safety, considering the system effects observed in the data for the tested roof assemblies, comparable to that required for wood member design. A similar approach was also recommended by NIST in a landmark 1948 study of structural engineering data and practices for the design of residential buildings. If such action had been taken then, we would likely not be debating this issue now. Furthermore, conventional construction would have been efficiently designed and built such that it is not over-designed in low wind regions (as proposed in RB265) or under-designed in high wind regions (as has occurred in past construction). This proposal attempts to finally resolve this issue in a practical manner.

The proposed wind loads are calculated based on the latest provisions of ASCE 7-05 and the low-rise building provisions which accounts for variation in roof slope. The proposed values for the 4:12 roof pitch conditions are similar to those currently in the code. These calculations also are conservative relative to actual field experience. For example, when the required uplift values are scaled up to 150 mph wind speed, a design resistance value of about 980 lbs would be required for a 4:12 pitch, 28 ft span roof with trusses at 24 inches on center (typical south Florida home). In Hurricane Andrew, typical roof tie brackets on homes were sized to about 750 lbs design capacity and failures of correctly installed roof ties in this 160 mph, 300-year event were rare as expected. Therefore, these calculated resistance values are conservative when compared to actual experience.

This public comment is based on feedback from several people regarding code changes RB-264 through RB-268 and our desire to come up with a solution that can meet the needs for everyone. This code change is the result of Richard Zimmermann, WTCA technical staff member and Jay Crandell, ARES Consulting, taking this feedback and crafting language that does its best to meet the needs of everyone involved in the discussions.

Thank you for your consideration of this public comment. Should you have any questions please contact Richard Zimmerman (608-310-6743) or me.

Respectfully Yours,



Kirk Grundahl, P.E.
Executive Director

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us		Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: ____Kirk Grundahl, P.E._____ Representing: ___WTCA_____

Address: __6300 Enterprise Lane, Madison, WI 53719_____ Phone No.: _ 608/274-4849_____

Regulation Title: __2003 USBC (residential buildings)_____ Section No(s): __Table R305.1_____

Proposed Change:

Revise as follows:

TABLE R301.5
MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS
(in pounds per square foot)

(Portions of table not shown do not change)

a. Elevated garage floors shall be capable of supporting a 2,000-pound load applied over a 20-square-inch area.

b. Attics without storage are those where the maximum clear height between joist and rafter is less than 42 inches, or where there are not two or more adjacent trusses with the same web configuration capable of containing a rectangle 42 inches high by 2 feet wide, or greater, located within the plane of the truss. For attics without storage, this live load need not be assumed to act concurrently with any other live load requirements.

c. Individual stair treads shall be designed for the uniformly distributed live load or a 300-pound concentrated load acting over an area of 4 square inches, whichever produces the greater stresses.

d. A single concentrated load applied in any direction at any point along the top.

e. See Section R502.2.1 for decks attached to exterior walls.

f. Guard in-fill components (all those except the handrail), balusters and panel fillers shall be designed to withstand a horizontally applied normal load of 50 pounds on an area equal to 1 square foot. This load need not be assumed to act concurrently with any other live load requirement.

g. For attics with limited storage and constructed with trusses, this live load need be applied only to those portions of the bottom chord where there are two or more adjacent trusses with the same web configuration capable of containing a rectangle 42 inches high or greater by 2 feet wide or greater, located within the plane of the truss. The rectangle shall fit between the top of the bottom chord and the bottom of any other truss member, provided that each of the following criteria is met:

1. The attic area is accessible by a pull-down stairway or framed opening in accordance with Section R807.1; and
2. The truss has a bottom chord pitch less than 2:12.
3. Required insulation depth is less than the bottom chord member depth

The bottom chords of trusses meeting the above criteria for limited storage shall be designed for the greater of the actual imposed dead load or 10 psf, uniformly distributed over the entire span.

h. Attic spaces served by a fixed stair shall be designed to support the minimum live load specified for sleeping rooms.

i. Glazing used in handrail assemblies and guards shall be designed with a safety factor of 4. The safety factor shall be applied to each of the concentrated loads applied to the top of the rail, and to the load on the in-fill components. These loads shall be determined independent of one another, and loads are assumed not to occur with any other live load.

Reason:

WTCA offered a code change proposal in the 2009 cycle to the IRC 2006 to address two issues related to Table R301.5. RB49-06/07 which was accepted by the IRC-BE Committee as submitted. We respectfully request that the Virginia Department of Housing and Community Development amend the footnotes to Table R301.5 in concert with what has been accepted by the IRC-BE committee.

The following reason was provided for proposal RB49-06/07:

> **Reason:** To clarify and harmonize IRC requirements regarding the increase in dead load with IBC footnote to Table 1607.1 and with the original BOCA requirements at BOCA Section 1606.2.3. In addition, a criterion has been added in the IRC, to not require the storage load application in areas where the insulation depth precludes the use of the space for storage.
>
> **IBC footnote to Table 1607.1**
> j. For attics with limited storage and constructed with trusses, this live load need only be applied to those portions of the bottom chord where there are two or more adjacent trusses with the same web configuration capable of containing a rectangle 42 inches high by 2 feet wide or greater, located within the plane of the truss. The rectangle shall fit between the top of the bottom chord and the bottom of any other truss member, provided that each of the following criteria is met:
> i. The attic area is accessible by a pull-down stairway or framed opening in accordance with Section 1209.2, and
> ii. The truss shall have a bottom chord pitch less than 2:12.
> iii. Bottom chords of trusses shall be designed for the greater of actual imposed dead load or 10 psf, uniformly distributed over the entire span.
>
> The minimum ceiling insulation requirement per Table N1102.1 is R30. This typically requires about 9 inches of batt or blown insulation. A storage load applied in trussed areas with insulation will cause collateral damage of the ceiling surface that will prevent the use of the area as a storage area.
>
> **Cost Impact:** The code change proposal will not increase the cost of construction. Truss design software is programmed to include the load evaluation in this manner.

Thank you for your consideration of this public comment. Should you have any questions please contact Richard Zimmerman (608-310-6743) or me.

Respectfully Yours,

Kirk Grundahl, P.E.
Executive Director

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us		Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: ____Kirk Grundahl, P.E._____ Representing: ___WTCA_____

Address: __6300 Enterprise Lane, Madison, WI 53719_____ Phone No.: _ 608/274-4849_____

Regulation Title: __2003 USBC (residential buildings)_____ Section No(s): __R404.1 & related Tables_____

Proposed Change:

Delete Section R404.1 and related tables and replace with provisions from IRC-03 as follows:

SECTION R404

FOUNDATION WALLS

R404.1 Concrete and masonry foundation walls. Concrete And masonry foundation walls shall be selected and constructed in accordance with the provisions of this section or in accordance with ACI 318, NCMA TR68-A or ACI 530/ASCE 5/TMS 402 or other approved structural standards. When ACI 318 or ACI 530/ASCE 5/TMS402 or the provisions of this section are used to design concrete or masonry foundation walls, project drawings, typical details and specifications are not required to bear the seal of the architect or engineer responsible for design, unless otherwise required by the state law of the jurisdiction having authority.

R404.1.1 Masonry foundation walls. Concrete masonry and clay masonry foundation walls shall be constructed as set forth in Tables R404.1.1(1), R404.1.1(2), R404.1.1(3) andR404.1.1(4) and shall also comply with the provisions of this section and the applicable provisions of Sections R606, R607 and R608. In Seismic Design Categories D_1 and D_2, concrete masonry and clay masonry foundation walls shall comply with Section R404.1.4. Rubble stone masonry foundation walls shall be constructed in accordance with Sections R404.1.8 and R606.2.2. Rubble stone masonry walls shall not be used in Seismic Design Categories D_1 and D_2.

R404.1.2 Concrete foundation walls. Concrete foundation walls shall be constructed as set forth in TablesR404.1.1(1), R404.1.1(2), R404.1.1(3) and R404.1.1(4), and shall also comply with the provisions of this section and the applicable provisions of Section R402.2. In Seismic Design Categories D_1 andD_2, concrete foundation walls shall comply with Section R404.1.4.

R404.1.3 Design required. A design in accordance with accepted engineering practice shall be provided for concrete or masonry foundation walls when any of the following conditions exist:

1. Walls are subject to hydrostatic pressure from groundwater.
2. Walls supporting more than 48 inches (1219 mm) of unbalanced backfill that do not have permanent lateral support at the top and bottom.

REASON:

Code change proposal RB149-06/07 was submitted to address concerns with foundation connection requirements included in the IRC 2006. It was approved as submitted by Assembly Action. We respectfully request that the Virginia Department of Housing and Community Development follow suit and amend section R404.1 and related tables to return to the provisions of the IRC-03.

Proposal RB149-06/07 was offered by an extensive group of interested parties:

> **Proponents:** Lionel Lemay, National Ready Mixed Concrete Association; Ed Sauter, AIA, Concrete Foundation Association; Stephen V. Skalko, P.E., Portland Cement Association; Edgar Sutton, P.E. , National Association of Home Builders; Jason Thompson, P.E., National Concrete Masonry Association

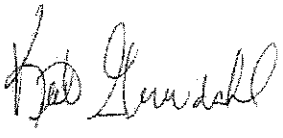
The following reasons were submitted:

> **Reason:** The provisions for laterally supporting basement walls at the top and bottom in the 2000 & 2003 IRC and were previously in the CABO One and Two Family Dwelling Code for many years. Basement walls constructed in accordance with these provisions have performed successfully with no evidence of code deficiencies. Code change S89-04/05 revised the lateral support provisions based on engineering analysis that indicate the 2003 IRC provisions were unconservative. In the reason statement for the code change, the proponent suggested there have been failures of foundation walls built according to these provisions but no detailed data to substantiate these failures was provided. Absent sufficient technical justification for the change, the IBC Structural Committee correctly took action to recommend its disapproval. During the challenge process public comments were submitted requesting that code change S89-05 be approved as modified. These challenges again alluded to foundation wall failures but no data to substantiate a deficiency with the existing provisions was offered. Unfortunately, the challenges to S89-05 were discussed in Detroit very late one evening of the public hearings. With a very small representation of the voting membership present, the action of the IBC Structural Committee was overturned and the foundation provisions revised to include three new tables and additional limitations to be evaluated for applying prescriptive provisions to foundation walls. This proposed change deletes these new tables and additional limitations placed on foundation walls so that the requirements for constructing foundation walls will be permitted to follow the prescriptive provisions that have been in the national model residential codes and performed successfully for many years.

We propose that Virginia adopt the requirements as given in Section R404.1 of the 2003 IRC with related tables, rather than propose a local amendment, until this issue is resolved in the IRC 2009 code process.

Thank you for your consideration of this public comment. Should you have any questions please contact Richard Zimmerman (608-310-6743) or me.

Respectfully Yours,



Kirk Grundahl, P.E.
Executive Director

R602.10 Wall bracing. All exterior walls and interior braced wall lines, where required by Section R602.10.1.5, shall be braced in accordance with this section. Where a building, or portion thereof, does not comply with one or more of the bracing requirements in this section, those portions shall be designed and constructed in accordance with accepted engineering practice. For structures in areas where the wind speed from Table R301.2(1) is 110 mph or greater, an engineered design is required.

All method(s) of bracing used shall be identified and located on the construction documents.

R602.10.1 Braced wall lines. Braced wall lines, both interior and exterior, shall be provided with braced wall panels in the percentage and location specified in this section.

R602.10.1.1 Braced wall panels. Braced wall panels shall be in accordance with one of the following: intermittent bracing methods as specified in Section R602.10.2, the intermittent narrow methods as specified in Section R602.10.3, or the continuous sheathing methods as specified in R602.10.4. Bracing shall be permitted to vary as follows:

1. Variation in bracing methods from braced wall line to braced wall line within a story is permitted, except that continuous sheathing shall conform to the additional requirements of Section R602.10.4.
2. Variation in intermittent bracing methods within a braced wall line is permitted for single-family dwellings in Seismic Design Categories A, B and C and townhouses in Seismic Design Categories A and B. The required percentage of bracing for the braced wall line with mixed methods shall use the higher bracing percentage, per Table R602.10.1.2, of all methods used.

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us	1/16/07	Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: Guy Tomberlin, Fairfax County (VBCOA) and VA Plumbing and Mechanical Inspectors Association (VPMIA) Representing: VA Building and Code Officials Association

Address:12055 Government Center Pkwy., Suite 630 Fairfax, VA 22030 Phone No.:703-324-1611

Regulation Title: Part I Construction USBC Section No(s): Technical amendments to the IRC

Proposed Change:

Proposal:

Delete these definitions and terms with out substitution:

~~**CONFINED SPACES.** A space having a volume less than 50 cubic feet per 1,000 British thermal units per hour (Btu/h) (4.8 m³/kW) of the aggregate input rating of all appliances installed in that space.~~

~~**UNCONFINED SPACE.** A space having a volume not less than 50 cubic feet per 1,000 Btu/h (4.8m³/kW) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of the unconfined space.~~

~~**UNUSUALLY TIGHT CONSTRUCTION.** Construction meeting the following requirements:~~
~~1. Walls exposed to the outdoor atmosphere having a continuous water vapor retarder with a rating of 1 perm [57 ng/ (s .m² .Pa)] or less with openings gasketed or sealed;~~
~~2. Openable windows and doors meeting the air-leakage requirements of the *International Energy Conservation Code*, Section 402.4.2; and~~
~~3. Caulking or sealants are applied to areas, such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical and gas lines and at other openings.~~

SECTION M1701

GENERAL
M1701.1 ~~**Air supply**~~ Scope. Liquid- and solid-fuel-burning appliances shall be provided with a supply of air for fuel combustion, draft hood dilution and ventilation of the space in which the appliance is installed, in accordance with the appliance manufactures installation instructions and NFPA 31. ~~Section M1702 or Section M1703.~~ The methods of providing combustion air in this chapter do not apply to fireplaces, fireplace stoves and direct-vent appliances. This chapter shall not apply to natural gas or liquefied petroleum applications, the requirements for combustion and dilution air for gas-fired appliances shall be in accordance with *Chapter 24*.

DELETE THE REMAINING TEXT OF THE ENTIRE CHAPTER 17

Supporting Statement:

This proposal was approved as submitted at the Public Hearings in FL.

These definitions have been deleted from Chapter 24 by way of the IFGC. They were used to determine if a structure needed the addition of outdoor air for combustion air.
Testing from the fuel gas industry has determined that "unusually tight", "unconfined space", and "confined space", are not factors of any relevance when determining if combustion air needs to be obtained from outdoors.
The provisions found in Chapter 17 are based on fuel gas provisions which are not germane to liquid or solid fuel appliances. NFPA 31 is already a reference document in the IRC so there is not an increased cost to construction. NFPA 31 is a maintained document that contains the relevant information for liquid and solid fuel appliances. As always the manufactures installation instructions are part of code requirements.

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us	1/16/07	Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: Guy Tomberlin, Fairfax County (VBCOA) and VA Plumbing and Mechanical Inspectors Association (VPMIA) Representing: VA Building and Code Officials Association

Address:12055 Government Center Pkwy., Suite 630 Fairfax, VA 22030 Phone No.:703-324-1611

Regulation Title: Part I Construction USBC Section No(s): Technical amendments to the IRC

Proposed Change:

Proposal:

Delete and substitute as follows

~~**P3007.1 Sewage ejectors or sewage pumps.** A sewage ejector, sewage pump, or grinder pump receiving discharge from a water closet shall have minimum discharge velocity of 1.9 feet per second (0.579 m/s) throughout the discharge piping to the point of connection with a gravity building drain, gravity sewer or pressure sewer system. A nongrinding pump or ejector shall be capable of passing a 1½ inch diameter (38 mm) solid ball, and the discharge piping shall be not less than 2 inches (51 mm) in diameter. The discharge piping of grinding pumps shall be not less than 1¼ inches (32 mm)in diameter. A check valve and a gate valve located on the discharge side of the check valve shall be installed in the pump or ejector discharge piping between the pump or ejector and the drainage system. Access shall be provided to such valves. Such valves shall be located above the sump cover or, where the discharge pipe from the ejector is below grade, the valves shall be accessibly located outside the sump below grade in an access pit with a removable access cover.~~

~~**Exception:** Macerating toilet systems shall be permitted to have the discharge pipe sized in accordance with manufacturer's instructions, but not less than 0.75 inch (19 mm) in diameter.~~

~~**P3007.2 Building drains below sewer (building subdrains).** Building drains which cannot be discharged to the sewer by gravity flow shall be discharged into a tightly covered and vented sump from which the contents shall be lifted and discharged into the building gravity drainage system by automatic pumping equipment.~~

~~**P3007.2.1 Drainage piping.** The system of drainage piping belowthe sewer level shall be installed and vented in a manner similar to that of the gravity system. Only such drains that must be lifted for discharge shall be discharged into sumps. All other drains shall be discharged by gravity.~~

~~**Exception:** Macerating toilet systems shall be permitted as an alternate to the sewage pump or ejector system. The macerating toilet shall comply with ASME A112.3.4 or CSA B45.9 and shall be installed in accordance with manufacturers' instructions.~~

P3007.1 Building subdrains. Building subdrains that cannot be discharged to the sewer by gravity flow shall be discharged into a tightly covered and vented sump from which the liquid shall be lifted and discharged into the building gravity drainage system by automatic pumping equipment or other approved method. In other than existing structures, the sump shall not receive drainage from any piping within the building capable of being discharged by gravity to the building sewer.

P3007.2 Valves required. A check valve and a full open valve located on the discharge side of the check valve shall be installed in the pump or ejector discharge piping between the pump or ejector and the gravity drainage system. Access shall be provided to such valves. Such valves shall be located above the sump cover required by Section P3007.3.2 or, where the discharge pipe from the ejector is below grade, the valves shall be accessibly located outside the sump below grade in an access pit with a removable access cover.

P3007.3 Sump design. The sump pump, pit and discharge piping shall conform to the requirements of Sections P3007.3.1 through P3007.3.5.

P3007.3.1 Sump pump. The sump pump capacity and head shall be appropriate to anticipated use requirements.

P3007.3.2 Sump pit. The sump pit shall be not less than 18 inches (457 mm) in diameter and 24 inches (610 mm) deep, unless otherwise approved. The pit shall be accessible and located such that all drainage flows into the pit by gravity. The sump pit shall be constructed of tile, concrete, steel, plastic or other approved materials. The pit bottom shall be solid and provide permanent support for the pump. The sump pit shall be fitted with a gas-tight removable cover adequate to support anticipated loads in the area of use. The sump pit shall be vented in accordance with Chapter 31.

P3007.3.3 Discharge piping. Discharge piping shall meet the requirements of Section P3307.2.

P3007.3.4 Maximum effluent level. The effluent level control shall be adjusted and maintained to at all times prevent the effluent in the sump from rising to within 2 inches (51 mm) of the invert of the gravity drain inlet into the sump.

P3007.3.5 Ejector connection to the drainage system. Pumps connected to the drainage system shall connect to the building sewer or shall connect to a wye fitting in the building drain a minimum of 10 feet (3048 mm) from the base of any soil stack, waste stack or fixture drain. Where the discharge line connects into horizontal drainage piping, the connectoion shall be made through a wye fitting into the top of the drainage piping.

P3007.4 Sewage pumps and sewage ejectors. A sewage pump or sewage ejector shall automatically discharge the contents of the sump to the building drainage system.

P3007.5 Macerating toilet systems. Macerating toilet systems shall comply with CSA B45.9 or ASME A112.3.4 and shall be installed in accordance with the manufacturer's installation instructions.

P3007.6 Capacity. A sewage pump or sewage ejector shall have the capacity and head for the application requirements. Pumps or ejectors that receive the discharge of water closets shall be capable of handling spherical solids with a diameter of up to and including 2 inches (51 mm). Other pumps or ejectors shall be capable of handling spherical solids with a diameter of up to and including 1 inch (25.4 mm). The minimum

capacity of a pump or ejector based on the diameter of the discharge pipe shall be in accordance with Table 3007.6.

Exceptions:

1. Grinder pumps or grinder ejectors that receive the discharge of water closets shall have a minimum discharge opening of 1.25 inches (32 mm).
2. Macerating toilet assemblies that serve single water closets shall have a minimum discharge opening of 0.75 inch (19 mm).

TABLE 3007.6
MINIMUM CAPACITY OF SEWAGE PUMP OR SEWAGE EJECTOR
DIAMETER OF THE DISCHARGE - CAPACITY OF PUMP OR EJECTOR

PIPE (inches)	(gpm)
2	21
2½	30
3	46

For SI: 1 inch = 25.4 mm, 1 gallon per minute = 3.785 L/m.

Supporting Statement:

This proposal was approved as submitted at the Public Hearings in FL.

These are the provisions from the IPC on sewage ejectors and sumps. They are much more complete and detailed than the current IRC text. This provides more complete guidance for the user.

Note: The following items are required to be included:
Purpose: The proponent shall clearly state the purpose of the proposed code change (e.g., clarify the Code; revise outdated material; substitute new or revised material for current provision of the Code; add new requirements to the Code; delete current requirements, etc.)
Reasons: The proponent shall justify changing the current code provisions, stating why the proposal is superior to the current provisions of the Code. Proposals that add or delete requirements shall be supported by a logical explanation which clearly shows why the current Code provisions are inadequate or overly restrictive, specifies the shortcomings of the current Code provisions and explains how such proposals will improve the Code.
Substantiation: The proponent shall substantiate the proposed code change based on technical information and substantiation. Substantiation provided which is reviewed in accordance with Section 4.2 and determined as not germane to the technical issues addressed in the proposed code change shall be identified as such. The proponent shall be notified that the proposal is considered an incomplete proposal in accordance with Section 4.3, and the proposal shall be held until the deficiencies are corrected. The proponent shall have the right to appeal this action in accordance with the policy of the ICC Board. The burden of providing substantiating material lies with the proponent of the code change proposal. A minimum of two copies of all substantiating information shall be submitted. (3.4)
Bibliography: The proponent shall submit a bibliography of any substantiating material submitted with the code change proposal. The bibliography shall be published with the code change and the proponent shall make the substantiating materials available for review at the appropriate ICC office and during the public hearing.

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to:		Document No. _____
DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us	1/10/07	Committee Action: _____ BHCD Action: _____

Submitted by: Guy Tomberlin, Fairfax County Representing: VA Building and Code Officials Association (VBCOA) and VA Plumbing and Mechanical Inspectors Association (VPMIA)

Address:12055 Government Center Pkwy., Suite 630 Fairfax, VA 22030 Phone No.:703-324-1611

Regulation Title: Part I Construction USBC Section No(s): Technical amendments to the IRC

Insert RP 27 – 06/07

CHAPTER 33
STORM DRAINAGE

SECTION 3301
GENERAL

P3301.1 Scope. The provisions of this chapter shall govern the materials, design, construction and installation of storm drainage.

SECTION 3302
SUBSOIL DRAINS

3302.1 Subsoil drains. Subsoil drains shall be open-jointed, horizontally split or perforated pipe conforming to one of the standards listed in Table3302.1 Such drains shall not be less than 4 inches (102 mm) in diameter. Where the building is subject to backwater, the subsoil drain shall be protected by an accessibly located backwater valve. Subsoil drains shall discharge to a trapped area drain, sump, dry well or approved location above ground. The subsoil sump shall not be required to have either a gas-tight cover or a vent. The sump and pumping system shall comply with Section 3303.

TABLE 3302.1
SUBSOIL DRAIN PIPE

MATERIAL	STANDARD
Asbestos-cement pipe	ASTM C 508
Cast-iron pipe	ASTM A 74; ASTM A 888; CISPI 301
Polyethylene (PE) plastic pipe	ASTM F 405; CSA B182.1; CSA B182.6; CSA B182.8
Polyvinyl chloride (PVC) Plastic pipe (type sewer pipe, PS25, PS50 or PS100)	ASTM D 2729; ASTM F 891; CSA B182.2; CSA B182.4
Stainless steel drainage systems, Type 316L	ASME A112.3.1
Vitrified clay pipe	ASTM C 4; ASTM C 700

SECTION 3303
SUMPS AND PUMPING SYSTEMS

3303.1 Pumping system. The sump pump, pit and discharge piping shall conform to Sections 3303.1.1 through 3303.1.4.

3303.1.1 Pump capacity and head. The sump pump shall be of a capacity and head appropriate to anticipated use requirements.

3303.1.2 Sump pit. The sump pit shall not be less than 18 inches (457 mm) in diameter and 24 inches (610 mm) deep, unless otherwise approved. The pit shall be accessible and located such that all drainage flows into the pit by gravity. The sump pit shall be constructed of tile, steel, plastic, cast-iron, concrete or other approved material, with a removable cover adequate to support anticipated loads in the area of use. The pit floor shall be solid and provide permanent support for the pump.

3303.1.3 Electrical. Electrical outlets shall meet the requirements of Chapters 34 through 43.

3303.1.4 Piping. Discharge piping shall meet the requirements of Sections 3002.1, 3002.2, 3002.3 and 3003. Discharge piping shall include an accessible full flow check valve. Pipe and fittings shall be the same size as, or larger than, pump discharge tapping.

SECTION R202
DEFINITIONS

SUBSOIL DRAIN. A drain that collects subsurface water or seepage water and conveys such water to a place of disposal.

2. Add standards to Chapter 43 as follows:

ASTM

C508-00	Specification for Asbestos-Cement Underdrain Pipe
F405-97	Specification for Corrugated Polyethylene (PE) Tubing and Fittings
D2729-96a	Specification for Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings
C4-03	Specification for Clay Drain Tile and Perforated Clay Drain Tile

CSA

B182.1-02	Plastic Drain and Sewer Pipe and Pipe Fittings
B182.6-02	Profile Polyethylene Sewer Pipe and Fittings for Leak-Proof Sewer Applications
B182.8-02	Profile Polyethylene Storm Sewer and Drainage Pipe and Fittings

Reason: Current IRC is lacking the provisions for sumps, pumps, and any related equipment. These common items are found in residential construction across the US. These are vital provisions that will help ensure properly installed systems. This information was extracted from the IPC and modified as appropriate for residential applications.

Supporting Statement:

This proposal was approved as submitted at the Public Hearings in FL.

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to:		Document No. _____
DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321		Committee Action: _____
Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us		BHCD Action: _____

Submitted by: ___Lynn Underwood, CBO_____ Representing: ___City of Norfolk_____

Address: _400 Granby, Norfolk, Va 23510_____ Phone No.: (757) 664-6511_____

Regulation Title: _Design Criteria_____ Section No(s): Section R301.2.1.1_____

Proposed Change:

R301.2.1.1 Design criteria. Construction in regions where the basic wind speeds from Figure R301.2(4) equal or exceed ~~100 miles per hour (45 m/s) in hurricane prone regions, or~~ 110 miles per hour (49m/s) ~~elsewhere,~~ shall be designed in accordance with one of the following:

1. American Forest and Paper Association (AF&PA) *Wood Frame Construction Manual for One- and Two-Family Dwellings* (WFCM); or
2. *Southern Building Code Congress International Standard for Hurricane Resistant Residential Construction* (SSTD 10); or
3. *Minimum Design Loads for Buildings and Other Structures* (ASCE-7); or
4. American Iron and Steel Institute (AISI), *Standard for Cold-Formed Steel Framing—Prescriptive Method For One- and Two-Family Dwellings (COFS/PM) with Supplement to Standard for Cold-Formed Steel Framing—Prescriptive Method For One- and Two-Family Dwellings.*
5. Concrete construction shall be designed in accordance with the provisions of this code.

Supporting Statement:

This proposed change in the 2006 IRC would preserve consistency for one and two family dwelling construction in the 2000 and 2003 IRC in Coastal Virginia. Decreasing the threshold wind speed from 110 to 100 mph would force several jurisdictions to require a Registered Design Professional to design single family buildings. This action would be inconsistent with the Purpose and Scope: "*... That buildings and structures should be permitted to be constructed at the least possible cost...*".

HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.virginia.gov		Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: Chuck Bajnai, residential plan reviewer

Representing: Chesterfield County Building Inspections

Address: Chesterfield County, VA

Phone No.: 804-717-6428

Regulation Title: Section No(s): USBC effective 11-16-2005,
Changes R403.1,
Exception
Condition #1

Proposed Change: USBC R403.1 **Exception**, **Condition 1** should be changed to:

"The building height is not more than 10 feet at the eave"

Supporting Statement:

The 2003 IRC section 403.1.4.1, Exception 1: "Freestanding accessory structures with an area of 400 sqft or less and an eave height of 10 ft or less..."

A 16'x16' storage shed (256 sqft, as currently written by USBC) cannot exceed 12' high (i.e. 6:12 slope roof). If the language was modified to agree with the IRC then steeper roof slopes could be accommodated.

Extrapolated from current code sections:

Storage sheds 0-150 sqft:	no permit		
Storage sheds 150-256 sqft:	permit	limitation:12' tall	anchored, but no permanent footings
Storage sheds 257-400 sqft:	permit	limitation:10' at eaves	permanent footings without frost protection
Storage sheds greater than 400 sqft	permit		permanent footings with frost protection

The change, if accepted, will make the two code section requirements compatible and reduce the provisional conditions to purely footing related (instead of height related also).

compressible, shifting or unknown soil characteristics, the building official shall determine whether to require a soil test to determine the soil's characteristics at a particular location. This test shall be made by an approved agency using an approved method.

27. Change Section R403.1 to read:

R403.1 General. All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill.

Exception: One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, not exceeding 256 square feet (23.7824 m^2) of building area, provided all of the following conditions are met:

1. The building height is not more than 12 feet.
2. The maximum height from the finished floor level to grade does not exceed 18 inches.
3. The supporting structural elements in direct contact with the ground shall be placed level on firm soil and when such elements are wood they shall be approved pressure preservative treated suitable for ground contact use.
4. The structure is anchored to withstand wind loads as required by this code.
5. The structure shall be of light-frame construction whose vertical and horizontal structural elements are primarily formed by a system of repetitive wood or light gauge steel framing members, with walls and roof of light weight material, not slate, tile, brick or masonry.

28. Add Section R502.2.1.1 to read:

R502.2.1.1 Deck ledger connection to band joist. For residential applications and a total design load of 50 psf, the connection between a pressure preservative treated southern pine (or approved decay-resistant species) deck ledger and a two-inch nominal band joist bearing on a sill plate or wall plate shall be constructed with 1/2-inch lag screws or bolts with washers per Table R502.2.1.1.

29. Add Table R502.2.1.1 to read:

TABLE R502.2.1.1
FASTENER SPACING FOR A RESIDENTIAL SOUTHERN PINE DECK LEDGER AND A 2-INCH NOMINAL SOLID-SAWN BAND JOIST (50 PSF TOTAL LOAD)[c]

Joist Span (ft)	6' and less	6'-1" to 8'	8'-1" to 10'	10'-1" to 12'
	On-Center Spacing of Fasteners[d,e]			
1/2"x 4" Lag Screw[a,b]	30	23	18	15
1/2" Bolt with washers	36	36	34	29
Joist Span (ft)	12'-1" to 14'	14'-1" to 16'	16'-1" to 18'	
	On-Center Spacing of Fasteners[d,e]			
1/2"x 4" Lag Screw[a,b]	13	11	10	
1/2" Bolt with washers	24	21	19	

a. The maximum gap between the face of the ledger board and face of the house band joist shall be 1/2 inch.
b. The tip of the lag screw shall fully extend beyond the inside face of the band joist.
c. Ledgers shall be flashed to prevent water from contacting the house band joist.
d. Lag screws and bolts shall be staggered as set out in Section R502.2.1.1.1.
e. Deck ledger shall be 2x8 PPT No. 2 Southern Pine (minimum) or other approved method and material as established by standard engineering practice.

30. Add Section R502.2.1.1.1 to read:

R502.2.1.1.1 Placement of lag screws or bolts in residential deck ledgers. The lag screws or bolts shall be placed two inches

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us	1/11/07	Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: Chuck Bajnai
Representing: chesterfield County
Address: 9800 government Parkway, Chesterfield, VA 23832
Phone No.: (804) 717-6428
Regulation Title: IRC Appendix G, Swimming Pools, Spas and Hot Tubs, Section No(s): AG105.6 (new)

Proposed Change:

Add new section:

Section AG105.6 Natural barrier exceptions. The requirement for a barrier surrounding a swimming pool, spa or hot tub is waived along those areas where natural land features provide equivalent protection. The man-made barrier described in AG105.2 shall extend to the within 4" of the natural barrier, or at least 24 inches past dry land in the case of a water feature. Land features may include such natural features as: the frontage along waterfront property and cliff edges or rock formations greater than 48" tall.

Supporting Statement:

Natural features can protect as well as fence type barriers from" potential drowning and near-drowning by restricting access..."

This still requires a continuous barrier around the pool, spa or hot tub, but it allows the barrier to be something other than a man-made barrier described in Ag105.2.

Providing a man-made barrier in front of a natural barrier would constitute a "double barrier".

Since the code is tacit about this particular situation, this code change proposes to address the issue.

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to:

DHCD, the Jackson Center
501 North Second Street
Richmond, VA 23219-1321

Tel. No. (804) 371 – 7150
Fax No. (804) 371 – 7092
Email: bhcd@dhcd.state.va.us

Document No. _____

Committee Action: _____

BHCD Action: _____

Submitted by: Michael K. Lawson, CGA, CET, CCI

Address: 1139 North Boston Rd, Troy, VA 22974 Phone No.: 434 589 6437

Regulation Title: State Uniform Building Code Section No(s): Appendix G, Swimming Pools, etc

Proposed Changes: (1) Add to Section AG107 Standards a reference to ASTM –F2208-2e (Swimming Pool Alarms).

(2) Incorporate the use of pool alarms as a permitted methodology for residential swimming pool safety as an alternative in AG105.2 subparagraph 9.

(3) Add language to section AG105.5 : "Localities are permitted to relax the code provisions of AG 105 when subject pool is not a visible 'attractive nuisance' from adjacent properties or in other circumstances when the literal application of the code would be excessively restrictive on subject property."

Supporting Statement:

(1, 2) The Code as currently constituted does not yet embrace existing pool alarm technology. There are now a number of alarm systems, which include laser, wave detection, sonar, negative displacement technology or other types of sensors on the market. All of these systems employ a local alarm (at the pool); most also have a "remote station" alarm that sounds in the home or other designated location, and many can be linked to private home security services, such as ADT, Brinks or other private associations. The American Society for Testing and Materials (ASTM) has published a standard in 2002 (F2208-02) regarding the performance of these systems.

(3) The Code needs to provide flexibility to local officials to exercise some "common sense" when dealing with non-typical residential properties. Dwellings located on larger acreage parcels, isolated dwellings, dwellings with existing perimeter fencing, dwellings with natural barriers (hedges or plantings) and others where the pool or spa is not readily accessible and/or visible to outsiders might not need close-in pool barriers. Such properties might satisfy public safety concerns with only automatic pool covers or pool alarms at the discretion of the local enforcement official

The author is a Certified Engineering Technician (CET), level III, Civil Engineering; level III, Architectural/Building Construction and level II, Electrical/Electronics, certification # 81776, National Institute for Certification in Engineering Technologies (NICET); a Certified Construction Inspector (CCI) by the Association of Construction Inspectors and a Certified General Appraiser in the Commonwealth of Virginia.

2.1. Electrical equipment connected after the last disconnecting means.

2.2. Plumbing piping and equipment connected after the last shutoff valve or backflow device and before the equipment drain trap.

2.3. Gas piping and equipment connected after the outlet shutoff valve.

3. Parking lots and sidewalks, which are not part of an accessible route.

4. Recreational equipment such as swing sets, sliding boards, climbing bars, jungle gyms, skateboard ramps, and similar equipment when such equipment is not regulated by the VADR.

5. Industrialized buildings; except, the applicable requirements of this code affecting site preparation, footings, foundations, proper anchoring and utility connections of the unit remain in full force and effect, including requirements for issuing permits and certificates of occupancy.

6. Manufactured homes, except the applicable requirements of this code affecting site preparation, skirting installation, footings, foundations, proper anchoring and utility connections of the manufactured home remain in full force and effect, including requirements for issuing permits and certificates of occupancy.

7. Farm buildings and structures, except for a building or a portion of a building located on a farm that is operated as a restaurant as defined in Section 35.1-1 of the Code of Virginia and licensed as such by the Virginia Board of Health pursuant to Chapter 2 (Section 35.1-11 et. seq.) of Title 35.1 of the Code of Virginia. However, farm buildings and structures lying within a flood plain or in a mudslide-prone area shall be subject to flood-proofing regulations or mudslide regulations, as applicable.

SECTION 103
APPLICATION OF CODE

103.1 General. In accordance with Section 36-99 of the Code of Virginia, the USBC shall prescribe building regulations to be complied with in the construction and rehabilitation of buildings and structures, and the equipment therein.

103.2 When applicable to new construction. Construction for which a permit application is submitted to the local building department after November 16, 2005, shall comply with the provisions of this code, except for permit applications submitted during a one-year period after November 16, 2005. The applicant for a permit during such one-year period shall be permitted to choose whether to comply with the provisions of this code or the provisions of the code in effect immediately prior to November 16, 2005. This provision shall also apply to subsequent amendments to this code based on the effective date of such amendments. In addition, when a permit has been properly issued under a previous edition of this code, this code shall not require changes to the approved construction documents, design or construction of such a building or structure, provided the permit has not been suspended or revoked.

103.3 Change of occupancy. No change shall be made in the existing occupancy classification of any structure when the current USBC requires a greater degree of structural strength, fire protection, means of egress, ventilation or sanitation. When such a greater degree is required, the owner or the owner's agent shall make written application to the local building department for a new certificate of occupancy and shall obtain the new certificate of occupancy prior to the use of the structure under the new occupancy classification. When impractical to achieve compliance with this code for the new occupancy classification, the building official shall consider modifications upon application and as provided for in Section 106.3.

Exception: This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.

103.4 Additions. Additions to buildings and structures shall comply with the requirements of this code for new construction and an existing building or structure plus additions shall comply with the height and area provisions of Chapter 5. Further, this code shall not require changes to the design or construction of any portions of the building or structure not altered or affected by an addition, unless the addition has the effect of lowering the current level of safety.

Exception: This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.

103.5 Reconstruction, alteration or repair. The following criteria is applicable to reconstruction, alteration or repair of buildings or structures provided the

SECTION 108
APPLICATION FOR PERMIT

108.1 When applications are required. Application for a permit shall be made to the building official and a permit shall be obtained prior to the commencement of any of the following activities, except that applications for emergency construction, alterations or equipment replacement shall be submitted by the end of the first working day that follows the day such work commences. In addition, the building official may authorize work to commence pending the receipt of an application or the issuance of a permit.

1. Construction or demolition of a building or structure, including the installation or altering of any equipment regulated by the USBC. For change of occupancy, application for a permit shall be made when a new certificate of occupancy is required under Section 103.3.

2. Movement of a lot line that increases the hazard to or decreases the level of safety of an existing building or structure in comparison to the building code under which such building or structure was constructed.

3. Removal or disturbing of any asbestos containing materials during the construction or demolition of a building or structure, including additions.

108.2 Exemptions from application for permit. Notwithstanding the requirements of Section 108.1, application for a permit and any related inspections shall not be required for the following; however, this section shall not be construed to exempt such activities from other applicable requirements of this code. In addition, when an owner or an owner's agent requests that a permit be issued for any of the following, then a permit shall be issued and any related inspections shall be required.

1. Installation of wiring and equipment that (i) operates at less than 50 volts, (ii) is for network powered broadband communications systems, or (iii) is exempt under Section 102.3(1), except when any such installations are located in a plenum, penetrate fire rated or smoke protected construction or are a component of any of the following:

   1.1. Fire alarm system.

   1.2. Fire detection system.

   1.3. Fire suppression system.

   1.4. Smoke control system.

   1.5. Fire protection supervisory system.

   1.6. Elevator fire safety control system.

   1.7. Access or egress control system or delayed egress locking or latching system.

   1.8. Fire damper.

   1.9. Door control system.

2. Detached accessory structures used as tool and storage sheds, playhouses or similar uses, provided the floor area does not exceed 150 square feet (14 m^2) and the structures are not accessory to a Group F or H occupancy.

3. Detached pre-fabricated buildings housing the equipment of a publicly regulated utility service, provided the floor area does not exceed 150 square feet (14 m^2).

4. Tents or air-supported structures, or both, that cover an area of 900 square feet (84 m^2) or less, including within that area all connecting areas or spaces with a common means of egress or entrance, provided such tents or structures have an occupant load of 50 or less persons.

5. Fences and privacy walls not part of a building, structure or of the barrier for a swimming pool, provided such fences and privacy walls do not exceed six feet in height above the finished grade. Ornamental post caps shall not be considered to contribute to the height of the fence or privacy wall and shall be permitted to extend above the six feet height measurement.

6. Retaining walls supporting less than two feet of unbalanced fill. This exemption shall not apply to any wall impounding Class I, II or III-A liquids or supporting a surcharge other than ordinary unbalanced fill.

7. Swimming pools that have a surface area not greater than 150 square feet (13.95 m^2), do not exceed 5,000 gallons (19 000 L) and are less than 24 inches (610 mm) deep.

8. Ordinary repairs not including (i) the cutting away of any wall, partition or portion thereof; (ii) the removal or cutting of any structural

CHAPTER 2
DEFINITIONS

SECTION 201
GENERAL

201.1 Scope. Unless otherwise expressly stated, the following words and terms shall, for the purposes of this code, have the meanings shown in this chapter.

201.2 Interchangeability. Words used in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the other *International Codes*, such terms shall have the meanings ascribed to them as in those codes.

201.4 Terms not defined. Where terms are not defined through the methods authorized by this chapter, such terms shall have ordinarily accepted meanings such as the context implies.

SECTION 202
GENERAL DEFINITIONS

ADDITION. An extension or increase in floor area, number of stories, or height of a building or structure.

ALTERATION. Any construction or renovation to an existing structure other than repair or addition. Alterations are classified as Level 1, Level 2, and Level 3.

CHANGE OF OCCUPANCY. A change in the purpose or level of activity within a building that involves a change in application of the requirements of this code.

DANGEROUS. Any building or structure or any individual member with any of the structural conditions or defects described below shall be deemed dangerous:

1. The stress in a member or portion thereof due to all factored dead and live loads is more than one and one third the nominal strength allowed in the *International Building Code* for new buildings of similar structure, purpose, or location.
2. Any portion, member, or appurtenance thereof likely to fail, or to become detached or dislodged, or to collapse and thereby injure persons.
3. Any portion of a building, or any member, appurtenance, or ornamentation on the exterior thereof is not of sufficient strength or stability, or is not anchored, attached, or fastened in place so as to be capable of resisting a wind pressure of two thirds of that specified in the *International Building Code* for new buildings of similar structure, purpose, or location without exceeding the nominal strength permitted in the *International Building Code* for such buildings.
4. The building, or any portion thereof, is likely to collapse partially or completely because of dilapidation, deterioration or decay; construction in violation of the *International Building Code*; the removal, movement or instability of any portion of the ground necessary for the purpose of supporting such building; the deterioration, decay or inadequacy of its foundation; damage due to fire, earthquake, wind or flood; or any other similar cause.
5. The exterior walls or other vertical structural members list, lean, or buckle to such an extent that a plumb line passing through the center of gravity does not fall inside the middle one third of the base.

EQUIPMENT OR FIXTURE. Any plumbing, heating, electrical, ventilating, air conditioning, refrigerating, and fire protection equipment, and elevators, dumb waiters, escalators, boilers, pressure vessels and other mechanical facilities or installations that are related to building services. Equipment or fixture shall not include manufacturing, production, or process equipment, but shall include connections from building service to process equipment.

EXISTING BUILDING. A building erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued.

[B] FLOOD HAZARD AREA. The greater of the following two areas:

1. The area within a flood plain subject to a 1-percent or greater chance of flooding in any year.
2. The area designated as a flood hazard area on a community's flood hazard map, or otherwise legally designated.

HISTORIC BUILDING. Any building or structure that is listed in the State or National Register of Historic Places; designated as a historic property under local or state designation law or survey; certified as a contributing resource within a National Register listed or locally designated historic district; or with an opinion or certification that the property is eligible to be listed on the National or State Registers of Historic Places either individually or as a contributing building to a historic district by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places.

LOAD-BEARING ELEMENT. Any column, girder, beam, joist, truss, rafter, wall, floor or roof sheathing that supports any vertical load in addition to its own weight or any lateral load.

REHABILITATION. Any work, as described by the categories of work defined herein, undertaken in an existing building.

REHABILITATION, SEISMIC. Work conducted to improve the seismic lateral force resistance of an existing building.

REPAIR. The restoration to good or sound condition of any part of an existing building for the purpose of its maintenance.

SEISMIC LOADING. The assumed forces prescribed herein, related to the response of the structure to earthquake motions, to be used in the analysis and design of the structure and its components.

Rodgers, Emory

From: Rodgers, Emory
Sent: Tuesday, February 13, 2007 1:31 PM
To: Rochjr@aol.com
Cc: Hodge, Vernon; Dennis Mitchell
Subject: RE: Finishing basements

Mr. Roche: The USBC R310.1 requires new homes and existing homes where a basement is made into habitable space to have an emergency egress opening and also one for bedrooms. However USBC Sections 103.3 Change of occupancy and 103.5 alterations could be construed by the building official to not impose the requirements of R310.1 or the building official has approved a modification.

From: Rochjr@aol.com [mailto:Rochjr@aol.com]
Sent: Tuesday, February 13, 2007 1:18 PM
To: Rodgers, Emory
Subject: Finishing basements

Some time ago I wrote asking about the code prohibiting the finishing of basements in homes that had neither egress or sprinkler systems and was told that it was not allowed and that older homes were not grandfathered. I have recently learned that Loudoun County has a grandfather provision for homes older than four years. It was my impression that the state code was not amendable by local jurisdictions. Is this not true? As a realtor, therefore, I must find out the code for each of the jurisdictions I cover. I am concerned that I have been giving misleading information. Can you help clarify for me or direct me to someone who can?

Thanks, Frank Roche

Frank & Judy Roche

Buying or selling a home?
Search MRIS at: Homesdatabase.com/Rocheteam
(select "Homes Prospector")
Call us at: 703-669-5154, or
e-mail: Frank@Rochehome.com
or: Judy@Rochehome.com

2.1. Electrical equipment connected after the last disconnecting means.

2.2. Plumbing piping and equipment connected after the last shutoff valve or backflow device and before the equipment drain trap.

2.3. Gas piping and equipment connected after the outlet shutoff valve.

3. Parking lots and sidewalks, which are not part of an accessible route.

4. Recreational equipment such as swing sets, sliding boards, climbing bars, jungle gyms, skateboard ramps, and similar equipment when such equipment is not regulated by the VADR.

5. Industrialized buildings; except, the applicable requirements of this code affecting site preparation, footings, foundations, proper anchoring and utility connections of the unit remain in full force and effect, including requirements for issuing permits and certificates of occupancy.

6. Manufactured homes, except the applicable requirements of this code affecting site preparation, skirting installation, footings, foundations, proper anchoring and utility connections of the manufactured home remain in full force and effect, including requirements for issuing permits and certificates of occupancy.

7. Farm buildings and structures, except for a building or a portion of a building located on a farm that is operated as a restaurant as defined in Section 35.1-1 of the Code of Virginia and licensed as such by the Virginia Board of Health pursuant to Chapter 2 (Section 35.1-11 et. seq.) of Title 35.1 of the Code of Virginia. However, farm buildings and structures lying within a flood plain or in a mudslide-prone area shall be subject to flood-proofing regulations or mudslide regulations, as applicable.

SECTION 103
APPLICATION OF CODE

103.1 General. In accordance with Section 36-99 of the Code of Virginia, the USBC shall prescribe building regulations to be complied with in the construction and rehabilitation of buildings and structures, and the equipment therein.

103.2 When applicable to new construction. Construction for which a permit application is submitted to the local building department after November 16, 2005, shall comply with the provisions of this code, except for permit applications submitted during a one-year period after November 16, 2005. The applicant for a permit during such one-year period shall be permitted to choose whether to comply with the provisions of this code or the provisions of the code in effect immediately prior to November 16, 2005. This provision shall also apply to subsequent amendments to this code based on the effective date of such amendments. In addition, when a permit has been properly issued under a previous edition of this code, this code shall not require changes to the approved construction documents, design or construction of such a building or structure, provided the permit has not been suspended or revoked.

103.3 Change of occupancy. No change shall be made in the existing occupancy classification of any structure when the current USBC requires a greater degree of structural strength, fire protection, means of egress, ventilation or sanitation. When such a greater degree is required, the owner or the owner's agent shall make written application to the local building department for a new certificate of occupancy and shall obtain the new certificate of occupancy prior to the use of the structure under the new occupancy classification. When impractical to achieve compliance with this code for the new occupancy classification, the building official shall consider modifications upon application and as provided for in Section 106.3.

Exception: This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.

103.4 Additions. Additions to buildings and structures shall comply with the requirements of this code for new construction and an existing building or structure plus additions shall comply with the height and area provisions of Chapter 5. Further, this code shall not require changes to the design or construction of any portions of the building or structure not altered or affected by an addition, unless the addition has the effect of lowering the current level of safety.

Exception: This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.

103.5 Reconstruction, alteration or repair. The following criteria is applicable to reconstruction, alteration or repair of buildings or structures provided the

reconstruction, alteration or repair does not adversely affect the performance of the building or structure, cause the building or structure to become unsafe or lower existing levels of health and safety.

1. Parts of the building or structure not being reconstructed, altered or repaired shall not be required to comply with the requirements of this code applicable to newly constructed buildings or structures.

2. The installation of material or equipment, or both, that is neither required nor prohibited shall only be required to comply with the provisions of this code relating to the safe installation of such material or equipment.

3. Material or equipment, or both, may be replaced in the same location with material or equipment of a similar kind or capacity.

Exception: This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.

103.6. Use of rehabilitation code. Compliance with Part II of the Virginia Uniform Statewide Building Code, also known as the "Virginia Rehabilitation Code," shall be an acceptable alternative to compliance with this code for the rehabilitation of such existing buildings and structures within the scope of that code. For the purposes of this section, the term "rehabilitation" shall be as defined in the Virginia Rehabilitation Code.

103.7. Retrofit requirements. The local building department shall enforce the provisions of Section 3411, which require certain existing buildings to be retrofitted with fire protection systems and other safety equipment. Retroactive fire protection system requirements contained in the International Fire Code shall not be applicable unless required for compliance with the provisions of Section 3411.

103.8 Non-required equipment. The following criteria for non-required equipment is in accordance with Section 36-103 of the Code of Virginia. Building owners may elect to install partial or full fire alarms or other safety equipment that was not required by the edition of the USBC in effect at the time a building was constructed without meeting current requirements of the code, provided the installation does not create a hazardous condition. Permits for installation shall be obtained in accordance with this code. In addition, as a requirement of this code, when such non-required equipment is to be installed, the building official shall notify the appropriate fire official or fire chief.

103.8.1 Reduction in function or discontinuance of nonrequired fire protection systems. When a nonrequired fire protection system is to be reduced in function or discontinued, it shall be done in such a manner so as not to create a false sense of protection. Generally, in such cases, any features visible from interior areas shall be removed, such as sprinkler heads, smoke detectors or alarm panels or devices, but any wiring or piping hidden within the construction of the building may remain. Approval of the proposed method of reduction or discontinuance shall be obtained from the building official.

103.9 Equipment changes. Upon the replacement or new installation of any fuel-burning appliances or equipment in existing buildings, an inspection or inspections shall be conducted to ensure that the connected vent or chimney systems comply with the following:

1. Vent or chimney systems are sized in accordance with either the International Residential Code, the International Mechanical Code or the International Fuel Gas Code, depending on which is applicable based on the fuel source and the occupancy classification of the structure.

2. Vent or chimney systems are clean, free of any obstruction or blockages, defects or deterioration and are in operable condition.

Where not inspected by the local building department, persons performing such changes or installations shall certify to the building official that the requirements of Items 1 and 2 of this section are met.

103.10 Use of certain provisions of referenced codes. The following provisions of the IBC and of other indicated codes or standards are to be considered valid provisions of this code. Where any such provisions have been modified by the state amendments to the IBC, then the modified provisions apply.

1. Special inspection requirements in Chapters 2 – 35.

2. Chapter 34, Existing Structures, except that Section 3410, Compliance Alternatives, shall not be used to comply with the retrofit requirements identified in Section 103.7 and shall not be construed to permit noncompliance

2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit.

R313.2.1 Alterations, repairs and additions. When alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings; the smoke alarms shall be interconnected and hard wired.

Exceptions:

1. Inter connection and hard-wiring of smoke alarms in existing areas shall not be required where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for hard wiring and interconnection without the removal of interior finishes.
2. Work involving the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck, are exempt from the requirements of this section.

R313.3 Power source. In new construction, the required smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Smoke alarms shall be permitted to be battery operated when installed in buildings without commercial power or in buildings that undergo alterations, repairs or additions regulated by Section R313.2.1.

SECTION R314
FOAM PLASTIC

R314.1 General. The provisions of this section shall govern the materials, design, application, construction and installation of foam plastic materials.

R314.2 Labeling and identification. Packages and containers of foam plastic insulation and foam plastic insulation components delivered to the job site shall bear the label of an approved agency showing the manufacturer's name, the product listing, product identification and information sufficient to determine that the end use will comply with the requirements.

R314.3 Surface burning characteristics. Unless otherwise allowed in Section R314.5 or R314.6, all foam plastic or foam plastic cores used as a component in manufactured assemblies used in building construction shall have a flame spread index of not more than 75 and shall have a smoke-developed index of not more than 450 when tested in the maximum thickness of 4 inches (102 mm), provided the end use is approved in accordance with Section R314.6 using the thickness and density intended for use.

Exception: Foam plastic insulation more than 4 inches thick shall have a maximum flame spread index of 75 and a smoke-developed index of 450 where tested at a minimum thickness of 4 inches, provided the end use is approved in accordance with Section R314.6 using the thickness and density intended for use.

R314.4 Thermal barrier. Unless otherwise allowed in Section R314.5 or Section R314.6, foam plastic shall be separated from the interior of a building by an approved thermal barrier of minimum 0.5 inch (12.7 mm) gypsum wallboard or an approved finish material equivalent to a thermal barrier material that will limit the average temperature rise of the unexposed surface to no more than 250°F (139°C) after 15 minutes of fire exposure complying with the ASTM E 119 standard time temperature curve. The thermal barrier shall be installed in such a manner that it will remain in place for 15 minutes based on NFPA 286 with the acceptance criteria of Section R315.4, FM 4880, UL 1040 or UL 1715.

R314.5 Specific requirements. The following requirements shall apply to these uses of foam plastic unless specifically approved in accordance with Section R314.6 or by other sections of the code or the requirements of Sections R314.2 through R314.4 have been met.

R314.5.1 Masonry or concrete construction. The thermal barrier specified in Section R314.4 is not required in a masonry or concrete wall, floor or roof when the foam plastic insulation is separated from the interior of the building by a minimum 1-inch (25 mm) thickness of masonry or concrete.

R314.5.2 Roofing. The thermal barrier specified in Section R314.4 is not required when the foam plastic in a roof assembly or under a roof covering is installed in accordance with the code and the manufacturer's installation instructions and is separated from the interior of the building by tongue-and-groove wood planks or wood structural panel sheathing in accordance with Section R803, not less than $^{15}/_{32}$ inch (11.9 mm) thick bonded with exterior glue and identified as Exposure 1, with edges supported by blocking or tongue-and-groove joints or an equivalent material. The smoke-developed index for roof applications shall not be limited.

R314.5.3 Attics. The thermal barrier specified in Section 314.4 is not required where attic access is required by Section R807.1 and where the space is entered only for service of utilities and when the foam plastic insulation is protected

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us		Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: Ron Clements Representing: VBCOA

Address: 9800 Government Center Parkway Phone No.: (804) 751-4163

Regulation Title: Virginia New Construction Code Section No(s): 108.2

Proposed Change:

108.2 Exemptions from application for permit. Notwithstanding the requirements of Section 108.1, application for a permit and any related inspections shall not be required for the following; however, this section shall not be construed to exempt such activities from other applicable requirements of this code. In addition, when an owner or an owner's agent requests that a permit be issued for any of the following, then a permit shall be issued and any related inspections shall be required.

Items 1 through 7 are unchanged. Item # 9 regarding signs to be renumbered #8 and item #10 regarding LP gas containers to be renumbered #9

10. Ordinary repairs which do not adversely affect public health or general safety. Ordinary repairs shall not include ~~including~~ (i) the removal ~~cutting away~~ of any wall, partition or portion thereof; (ii) the removal or alteration of ~~cutting~~ ~~of~~ any structural beam or loadbearing support; (iii) the repair or replacement of any required component of a fire or smoke rated assembly, (iv) the ~~removal or change~~ alteration of any required means of egress system; ~~(v) the rearrangement of parts of a structure affecting the egress requirements;~~ (v) the addition to, alteration of, replacement of or relocation of any ~~standpipe, water supply, sewer, drainage, drain leader, gas or oil, soil, waste, vent~~ water supply and distribution system, sanitary drainage system, or vent system or similar piping, electric wiring, fire protection system, mechanical system or fuel supply system ~~work~~; or (vi) any other work affecting public health or general safety. ~~However, Ordinary repairs~~ Ordinary repairs shall include~~, but are not limited to,~~ the following:

DELETE THE CURRENT SUB-SECTIONS (8.1 through 8.3) TO ITEM #8 AND REPLACE WITH THE FOLLOWING:

10.1. Replacement of windows and doors, that are not required to be fire rated, in: group R-2 where serving a single dwelling unit, R-3, R-4, and R-5;

10.2. Replacement of plumbing fixtures, in all use groups, without alteration of water supply and distribution systems, sanitary drainage systems, or vent systems;

10.3. Replacement of general use snap switches, dimmer and control switches, 125 volt 15 and 20 ampere receptacles, Luminaires (Lighting Fixtures) and ceiling (paddle) fans in: group R-2 where serving a single dwelling unit, R-3, R-4, and R-5;

10.4. Replacement of mechanical equipment, provided such equipment is not fueled by gas or oil, in group R-2 where serving a single dwelling unit, R-3, R-4, and R-5;

10.5. Replacement of an unlimited amount of roof covering or siding in Group R-3, R-4 or R-5 occupancies provided the building or structure is not in an area where the design (3 second gust) wind speed is greater than 100 miles per hour (160 km/hr) and Replacement of 100 sq. ft. or less of roof covering in all use groups and all wind zones;

10.6. Replacement of 100 sq. ft. or less of roof decking in Group R-3, R-4 or R-5 occupancies unless the decking to be replaced was required at the time of original construction to be fire retardant treated or protected in some other way to form a fire rated wall termination;

10.7. Installation or replacement of floor finishes in all occupancies;

10.8. Replacement of class C interior wall or ceiling finishes installed in group A, E and I occupancies and replacement of all classes of interior wall or ceiling finishes installed in occupancies other than group A, E and I;

10.9. Installation or replacement of cabinetry or trim,

10.10. Application of paint or wallpaper.

10.11. Other repair work deemed by the code official to be minor and ordinary which does not adversely affect public health or general safety.

Supporting Statement:

Section #8 has been relocated to the end of the list and renumbered #10 in an attempt to keep the long list of ordinary repairs as the last item so that the current items #9 and #10 are easier to find.

Editorial changes:

Section10.0 replace the word "cutting" with "removal" and "alteration", divide the section into three sentences for clarity, replace "removal or change" with "alteration", condense the two items regarding means of egress into one item and clean up the wording, update the plumbing system terminology, removed "but not limited to" as a catch-all in the charging statement and placed it into the list as item # 10.11.

The creation of subsections .1 through .11 editorially is an attempt to take mix of ordinary repairs currently listed in three sub-sections and organize them into individual subject specific sub-sections such that they are easier to interpret and apply.

A number of terms were updated with more current terminology that is found in the model codes; some examples are: "water supply and distribution", "general use snap switches", "roof decking"

Technical changes:

10, Replacement or repair of fire and smoke rated assembly components was added to make it clear that any component that may otherwise be exempted by the following list as an ordinary repair does require a permit if the component is part of a rated assembly. The existing 2003 USBC language exempts all interior wall finish replacements. If the interior wall finish also forms part of a required fire rated assembly (Fire Wall, Fire Partition, Fire Barrier, Smoke barrier), then a permit should be secured and inspections conducted to make sure that the proper material is utilized and installed to maintain the fire resistive rating. Many times, required fire rated materials (rated gypsum wall board) is replaced with a non-rated material when it becomes damaged. Improper fasteners may used or not correctly spaced and through penetrations are not properly sealed. Common places where this occurs is in dwelling unit separations in apartments and townhouses, guest room separations in hotels, and in required fire rated corridors in all occupancies.

10.1, The existing residential exemptions for door and widow replacements was changed to require permits when the doors are required to be fire rated; such as fire rated corridor and breezeway doors to R-2 dwellings or protected openings in R-3 or R-4.

10.3, This re-wording permits the replacement of dimmers and paddle fan speed controls which are not general use snap switches and are commonly installed by the property owner. Eliminating the word outlets from receptacles as the outlet includes the cable, box and device as defined in NEC article 100. Limiting replacement of receptacles to 125 volt 15 and 20 amperes limits replacement to simple devices instead of 50 ampere, or greater poly-phase outlets thus exposing the installer to higher voltages etc.

10.5, The roof covering exemption was expanded to allow up to 100 sf of roof repair or replacement regardless of the occupancy classification or wind zone.

10.6, The addition of this language is intended to clarify that roof sheathing is not the same as roof finish replacement. It is not uncommon to replace damaged or rotted sheathing as part of a roof replacement. However, the sheathing forms part of the structure and can be an important part of the building design. Many roof replacements at townhouses and other residential occupancies involve replacing deteriorated FRT plywood in a 4 foot area adjacent to fire walls between units. This practice has been used for many years to replace parapet fire walls. Typically, permits are not received and the material replaced with non FRT plywood. The resulting laps in the required fire preventive material can lead to the spread of fire between units. This still allows up to 100 sf of deck replacement without requiring a permit to allow for a limited amount of deck replacement in conjunction with a re-roofing job.

10.8, Interior wall finishes are regulated in Chapter 8 (Section 803) and in other areas of the code such as Section 411.8 for special amusement buildings. The flame spread and smoke development potential is a critical element in occupant safety, especially in areas with high occupant loads or where building occupants are incapable of self preservation. Interior finishes are frequently changed in restaurants, night clubs, museums and other places of public assembly. The code change adds a requirement that use groups A, E and I should not be exempted from permits (and ultimately inspections) to insure compliance unless they are allowed to be a type C finish.

SECTION 108
APPLICATION FOR PERMIT

108.1 When applications are required. Application for a permit shall be made to the building official and a permit shall be obtained prior to the commencement of any of the following activities, except that applications for emergency construction, alterations or equipment replacement shall be submitted by the end of the first working day that follows the day such work commences. In addition, the building official may authorize work to commence pending the receipt of an application or the issuance of a permit.

1. Construction or demolition of a building or structure, including the installation or altering of any equipment regulated by the USBC. For change of occupancy, application for a permit shall be made when a new certificate of occupancy is required under Section 103.3.

2. Movement of a lot line that increases the hazard to or decreases the level of safety of an existing building or structure in comparison to the building code under which such building or structure was constructed.

3. Removal or disturbing of any asbestos containing materials during the construction or demolition of a building or structure, including additions.

108.2 Exemptions from application for permit. Notwithstanding the requirements of Section 108.1, application for a permit and any related inspections shall not be required for the following; however, this section shall not be construed to exempt such activities from other applicable requirements of this code. In addition, when an owner or an owner's agent requests that a permit be issued for any of the following, then a permit shall be issued and any related inspections shall be required.

1. Installation of wiring and equipment that (i) operates at less than 50 volts, (ii) is for network powered broadband communications systems, or (iii) is exempt under Section 102.3(1), except when any such installations are located in a plenum, penetrate fire rated or smoke protected construction or are a component of any of the following:

   1.1. Fire alarm system.

   1.2. Fire detection system.

   1.3. Fire suppression system.

   1.4. Smoke control system.

   1.5. Fire protection supervisory system.

   1.6. Elevator fire safety control system.

   1.7. Access or egress control system or delayed egress locking or latching system.

   1.8. Fire damper.

   1.9. Door control system.

2. Detached accessory structures used as tool and storage sheds, playhouses or similar uses, provided the floor area does not exceed 150 square feet (14 m^2) and the structures are not accessory to a Group F or H occupancy.

3. Detached pre-fabricated buildings housing the equipment of a publicly regulated utility service, provided the floor area does not exceed 150 square feet (14 m^2).

4. Tents or air-supported structures, or both, that cover an area of 900 square feet (84 m^2) or less, including within that area all connecting areas or spaces with a common means of egress or entrance, provided such tents or structures have an occupant load of 50 or less persons.

5. Fences and privacy walls not part of a building, structure or of the barrier for a swimming pool, provided such fences and privacy walls do not exceed six feet in height above the finished grade. Ornamental post caps shall not be considered to contribute to the height of the fence or privacy wall and shall be permitted to extend above the six feet height measurement.

6. Retaining walls supporting less than two feet of unbalanced fill. This exemption shall not apply to any wall impounding Class I, II or III-A liquids or supporting a surcharge other than ordinary unbalanced fill.

7. Swimming pools that have a surface area not greater than 150 square feet (13.95 m^2), do not exceed 5,000 gallons (19 000 L) and are less than 24 inches (610 mm) deep.

8. Ordinary repairs not including (i) the cutting away of any wall, partition or portion thereof; (ii) the removal or cutting of any structural

beam or loadbearing support; (iii) the removal or change of any required means of egress; (iv) the rearrangement of parts of a structure affecting the egress requirements; (v) the addition to, alteration of, replacement of or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas or oil, soil, waste, vent or similar piping, electric wiring or mechanical work; or (vi) any other work affecting public health or general safety. However, ordinary repairs shall include, but are not limited to, the following:

8.1. Either within the dwelling unit in Group R-2 occupancies that are four stories or less in height or in Group R-3, R-4 and R-5 occupancies, or both, replacement of (i) either mechanical or plumbing equipment or appliances, or both, provided such equipment or appliances are not fueled by gas or oil; (ii) floor coverings or porch flooring, or both; and (iii) windows, doors, electrical switches, electrical outlets, light fixtures or ceiling fans.

8.2. In Group R-3, R-4 or R-5 occupancies, replacement of either roof coverings or siding or the installation of siding, or both, provided the buildings or structures are not subject to wind speeds greater than 100 miles per hour (160 km/hr), determined in accordance with applicable requirements of this code.

8.3. Installation of cabinets, painting, replacement of interior floor finish or interior covering materials, or both, and repair of (i) plaster, (ii) interior tile, and (iii) any other interior wall covering.

9. Signs under the conditions in Section H101.2 of Appendix H.

10. Replacement of above-ground existing LP-gas containers of the same capacity in the same location and associated regulators when installed by the serving gas supplier.

108.3 Applicant information, processing by mail. Application for a permit shall be made by the owner or lessee of the relevant property or the agent of either or by the RDP, contractor or subcontractor associated with the work or any of their agents. The full name and address of the owner, lessee and applicant shall be provided in the application. If the owner or lessee is a corporate body, when and to the extent determined necessary by the building official, the full name and address of the responsible officers shall also be provided. A permit application may be submitted by mail and such permit applications shall be processed by mail, unless the permit applicant voluntarily chooses otherwise. In no case shall an applicant be required to appear in person.

108.4 Prerequisites to obtaining permit. In accordance with Section 54.1-1111 of the Code of Virginia, any person applying to the building department for the construction, removal or improvement of any structure shall furnish prior to the issuance of the permit, either (i) satisfactory proof to the building official that he is duly licensed or certified under the terms or Chapter 11 (Section 54.1-1000 et seq.) of Title 54.1 of the Code of Virginia to carry out or superintend the same, or (ii) file a written statement, supported by an affidavit, that he is not subject to licensure or certification as a contractor or subcontractor pursuant to Chapter 11 of Title 54.1 of the Code of Virginia. The applicant shall also furnish satisfactory proof that the taxes or license fees required by any county, city, or town have been paid so as to be qualified to bid upon or contract for the work for which the permit has been applied.

108.5 Mechanics' lien agent designation. In accordance with Section 36-98.01 of the Code of Virginia, a building permit issued for any one- or two-family residential dwelling shall at the time of issuance contain, at the request of the applicant, the name, mailing address, and telephone number of the mechanics' lien agent as defined in Section 43-1 of the Code of Virginia. If the designation of a mechanics' lien agent is not so requested by the applicant, the building permit shall at the time of issuance state that none has been designated with the words "None Designated."

108.6 Application form, description of work. The application for a permit shall be submitted on a form or forms supplied by the local building department. The application shall contain a general description and location of the proposed work and such other information as determined necessary by the building official.

108.7 Amendments to application. An application for a permit may be amended at any time prior to the completion of the work governed by the permit. Additional construction documents or other records may also be submitted in a like manner. All such submittals shall have the same effect as if filed with the original application for a permit and shall be retained in a like manner as the original filings.

108.8 Time limitation of application. An application for a permit for any proposed work shall be deemed to

074389728

SENATE BILL NO. 1053

Offered January 10, 2007

Prefiled January 9, 2007

A BILL to amend the Code of Virginia by adding a section numbered 36-99.6:4, relating to the Uniform Statewide Building Code; regulations; authority of localities; historic districts.

Patron-- Edwards

Referred to Committee on General Laws and Technology

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 36-99.6:4 as follows:

§ 36-99.6:4. Regulation of historic districts; local authority.

The Board of Housing and Community Development shall promulgate regulations as part of the Building Code that authorize a locality to require building permits for the installation of replacement siding, roofing, and windows in buildings within a historic district designated by the locality pursuant to § 15.2-2306.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CODE CHANGE FORM

Address to submit to: DHCD, The Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.virginia.gov		Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: DHCD Staff Representing: _____

Address: _____ Phone No. _____

Regulation Title: 2006 USBC – Virginia Construction Code Section No(s): 108.2

Proposed Change:

Add a new exception to Section 108.2 as follows:

> Exception: Application for a permit shall be required for the installation of replacement siding, roofing and windows in buildings within a historic district designated by a locality pursuant to Section 15.2-2306 of the Code of Virginia.

Supporting Statement:

This code change is in response to legislation introduced in the 2007 Session of the General Assembly. The legislation was tabled with the understanding that the Board of Housing and Community Development would consider amendments to the USBC to ensure that permits were obtained when replacing siding, roofing and windows in historic districts. The draft language is consistent with the proposed legislation.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CODE CHANGE FORM

Address to submit to: DHCD, The Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.virginia.gov		Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: DHCD Staff Representing: _____

Address: _____ Phone No. _____

Regulation Title: 2006 USBC – Virginia Construction Code Section No(s): 110.2

Proposed Change:

Change Section 110.2 to read as follows:

110.2 Types of permits. Separate or combined permits may be required for different areas of construction such as building construction, plumbing, electrical, and mechanical work, or for special construction as determined appropriate by the locality. In addition, permits for two or more buildings or structures on the same lot may be combined. Annual permits may also be issued for ~~alterations to an existing structure~~ for any construction regulated by this code . The annual permit holder shall maintain a detailed record of all ~~alterations made~~ construction under the annual permit. Such record shall be available to the building official and shall be submitted to the local building department if requested by the building official.

Supporting Statement:

This code change is in response to legislation approved in the 2007 Session of the General Assembly (Chapter 291 of the 2007 Acts of Assembly). The draft language is consistent with the legislation.

CHAPTER 291

An Act to amend and reenact § 36-105 of the Code of Virginia, relating to building permits for certain school construction.

[H 2497]
Approved March 12, 2007

Be it enacted by the General Assembly of Virginia:

1. That § 36-105 of the Code of Virginia is amended and reenacted as follows:

§ 36-105. Enforcement of Code; appeals from decisions of local department; inspection of buildings; inspection warrants; inspection of elevators.

A. Enforcement generally. Enforcement of the provisions of the Building Code for construction and rehabilitation shall be the responsibility of the local building department. There shall be established within each local building department a local board of Building Code appeals whose composition, duties and responsibilities shall be prescribed in the Building Code. Appeals from the local building department concerning application of the Building Code or refusal to grant a modification to the provisions of the Building Code shall first lie to the local board of Building Code appeals. No appeal to the State Building Code Technical Review Board shall lie prior to a final determination by the local board of Building Code appeals. Whenever a county or a municipality does not have such a building department or board of Building Code appeals, the local governing body shall enter into an agreement with the local governing body of another county or municipality or with some other agency, or a state agency approved by the Department for such enforcement and appeals resulting therefrom. For the purposes of this section, towns with a population of less than 3,500 may elect to administer and enforce the Building Code; however, where the town does not elect to administer and enforce the Building Code, the county in which the town is situated shall administer and enforce the Building Code for the town. In the event such town is situated in two or more counties, those counties shall administer and enforce the Building Code for that portion of the town which is situated within their respective boundaries. Fees may be levied by the local governing body in order to defray the cost of such enforcement and appeals.

B. New construction. Any building or structure may be inspected at any time before completion, and shall not be deemed in compliance until approved by the inspecting authority. Where the construction cost is less than $2,500, however, the inspection may, in the discretion of the inspecting authority, be waived. *A building official may issue an annual permit for any construction regulated by the Building Code.* The building official shall coordinate all reports of inspections for compliance with the Building Code, with inspections of fire and health officials delegated such authority, prior to issuance of an occupancy permit.

C. Existing buildings and structures.

1. Inspections and enforcement of the Building Code. The local governing body may also inspect and enforce the provisions of the Building Code for existing buildings and structures, whether occupied or not. Such inspection and enforcement shall be carried out by an agency or department designated by the local governing body.

2. Complaints by tenants. However, upon a finding by the local building department, following a complaint by a tenant of a residential dwelling unit that is the subject of such complaint, that there may

be a violation of the unsafe structures provisions of the Building Code, the local building department shall enforce such provisions.

3. Inspection warrants. If the local building department receives a complaint that a violation of the Building Code exists that is an immediate and imminent threat to the health or safety of the owner or tenant of a residential dwelling unit or a nearby residential dwelling unit, and the owner or tenant of the residential dwelling unit that is the subject of the complaint has refused to allow the local building official or his agent to have access to the subject dwelling, the local building official or his agent may present sworn testimony to a magistrate or a court of competent jurisdiction and request that the magistrate or court grant the local building official or his agent an inspection warrant to enable the building official or his agent to enter the subject dwelling for the purpose of determining whether violations of the Building Code exist. The local building official or his agent shall make a reasonable effort to obtain consent from the owner or tenant of the subject dwelling prior to seeking the issuance of an inspection warrant under this section.

4. Transfer of ownership. If the local building department has initiated an enforcement action against the owner of a building or structure and such owner subsequently transfers the ownership of the building or structure to an entity in which the owner holds an ownership interest greater than 50%, the pending enforcement action shall continue to be enforced against the owner.

D. Elevator inspections. The local governing body shall, however, inspect and enforce the Building Code for elevators, except for elevators in single- and two-family homes and townhouses. Such inspection shall be carried out by an agency or department designated by the local governing body.

---

history | pdf

074264254

HOUSE BILL NO. 2489

Offered January 10, 2007

Prefiled January 9, 2007

A BILL to amend the Code of Virginia by adding in Article 1 of Chapter 22 of Title 15.2 a section numbered 15.2-2209.1, relating to time limit for certain construction.

Patrons-- Bulova, Englin, Marsden and Sickles

Committee Referral Pending

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding in Article 1 of Chapter 22 of Title 15.2 a section numbered 15.2-2209.1 as follows:

§ 15.2-2209.1. Time limit for construction of single-family dwellings.

A. Notwithstanding the provisions of the Uniform Statewide Building Code (§ 36-97 et seq.), any local governing body may adopt an ordinance establishing a reasonable time limit for the construction of a single-family detached dwelling unit, or any exterior addition or modification to a single-family detached dwelling unit, located on a lot equal to or smaller than one acre in size or that is located 200 feet or less from the next closest single-family detached dwelling unit. Such time limit shall take into account factors that are appropriate for single-family detached construction projects, including, but not limited to, the size of the structure, site conditions, location, construction materials, weather conditions, and inspection procedures.

B. Any local ordinance adopted pursuant to subdivision A must provide for the following:

1. In no case shall the time limit for construction be less than three years from the issuance of the initial building permit for the project.

2. All building permits for single-family detached dwelling units, or any exterior addition or modification to single-family detached dwelling units, issued after ordinance adoption must include a statement that the project is subject to time limits and provide the time limit adopted by the local governing body.

3. For projects where the initial building permit was issued before local ordinance adoption, the time limit for construction shall begin when the local governing body provides written notice to the property owner stating: (i) that the property is subject to time limits, (ii) the date certain when the project must be completed, and (iii) where to obtain additional information.

4. At least one year prior to initiating enforcement action in accordance with subsections D and E, the local governing body must notify the property owner in writing stating: (i) that the property is subject to time limits; (ii) the date certain when the project must be completed; (iii) the remedies available to the local government; and (iv) where to obtain additional information.

5. Notification shall be deemed sufficient if sent by United States mail, postage prepaid, provided that the sender retains sufficient proof of mailing, which may be either a United States postal certificate of mailing or a certificate of service confirming such mailing prepared by the sender.

70

C. The local governing body may grant extensions upon finding that the owner is diligently pursuing completion. The granting of an extension shall not have the effect of extending the time frame for completion should the local governing body determine that the owner has ceased to diligently pursue completion.

D. Should the owner of a regulated property not complete a project by the specified time period, the local governing body may bring the case before a judge of the circuit court, who shall establish a reasonable schedule for completion of the project. Should the property owner fail to meet the schedule, the owner shall be held in contempt of the circuit court.

E. In addition to, or in lieu of, the provisions in subsection D, should the owner of a regulated property not complete a project by the specified time period, the local governing body may take the following steps:

1. The local governing body may require a landscape plan that screens the construction area from neighboring properties. The locality shall use the same screening requirements that are employed for buffering new commercial construction from residential areas.

2. The local governing body may require the owner to develop and implement a Storm Water Pollution Prevention Plan in accordance with a Virginia Stormwater Management Program General Permit for Discharges of Stormwater from Construction Activities regardless of the size of the property or the land area disturbed. Failure to comply with this requirement shall be deemed a violation of 4 VAC 50-60-10.

Legislative Information System

Hodge, Vernon

From: Rodgers, Emory
Sent: Tuesday, March 20, 2007 2:06 PM
To: Hodge, Vernon
Cc: Eubank, Paula
Subject: RE: Building permits for siding, roofing and windows in historic districts

Unless VBCOA wants to mandate across the board that I don't believe is the case would be optional so Roanoke can do thing, but rest would exempt from permits. I see 108.2 8.1 and 8.2 covering all three areas with 8.1 having windows and 8.2 the other two. Agree can be part of rewrite if VBCOA agrees but won't know until the April 9th meeting. Simple code change for purposes of discussions would in 8.1 and 8.2 do an exception to an exception just like we did for 110m.p.h. wind zones.

From: Hodge, Vernon
Sent: Tuesday, March 20, 2007 1:55 PM
To: Rodgers, Emory
Cc: Eubank, Paula
Subject: RE: Building permits for siding, roofing and windows in historic districts

We'll have to decide on the parameters for this change. Will the language permit the building official to decide whether permits are necessary in that locality, or should the code require permits in all historic districts and not leave it up to the building official. Secondly, there is no permit exemption for window replacement now, unless fitting into the ordinary repair language. We used to have a specific exemption for glass repair, but not window replacement. Also, this change should be coordinated with VBCOA's rewrite of the permit exemptions.

From: Rodgers, Emory
Sent: Tuesday, March 20, 2007 1:04 PM
To: Thomas Dick
Cc: Hodge, Vernon; Eubank, Paula; Karl.Cooler@roanokeva.gov
Subject: RE: Building permits for siding, roofing and windows in historic districts

Tom: here is schedule for the rest of 2007 and the effective date for March of 2008. Vernon Hodge will do draft code change for comments and public hearing July 23th. What will occur is that the USBC Section 108.2 Exceptions will say that the building official can require a permit for widow, roof and siding replacements in historic districts. We will send you and Karl Cooler a copy of the proposal once it is done.

From: Thomas Dick [mailto:tad_govern@msn.com]
Sent: Tuesday, March 20, 2007 11:19 AM
To: Rodgers, Emory
Subject: Building permits for siding, roofing and windows in historic districts

We spoke during the Session about the City of Roanoke legislation to provide for regs in the building code that would allow a locality to require a building permit for certain work done in historic districts.

Can you tell me the status of the rulemaking process now underway and what needs to be done on this.

Thank you.

Thomas Dick
Legislative Liaison, City of Roanoke

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us		Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: DHCD, Technical Assistance Services Office Representing: _____

Address: _____ Phone No.: _____

Regulation Title: 2006 USBC Construction Code Section No(s): 107.2

Proposed Change:

107.2 Code academy fee levy. In accordance with subdivision 7 of § 36-137 of the Code of Virginia, the local building department shall collect a 1.75% levy of fees charged for building permits issued under this code and transmit it quarterly to DHCD to support training programs of the Virginia Building Code Academy. The foregoing levy shall remain effective until June 30, 2009, after which time the fee levy shall be increased to 2%. Localities that maintain individual or regional training academies accredited by DHCD shall retain such levy.

Supporting Statement:

The Technical Assistance Services Office is preparing a report to submit with this code change substantiating the need for the increase in the fee levy.

SECTION 108
APPLICATION FOR PERMIT

108.1 When applications are required. Application for a permit shall be made to the building official and a permit shall be obtained prior to the commencement of any of the following activities, except that applications for emergency construction, alterations or equipment replacement shall be submitted by the end of the first working day that follows the day such work commences. In addition, the building official may authorize work to commence pending the receipt of an application or the issuance of a permit.

1. Construction or demolition of a building or structure, including the installation or altering of any equipment regulated by the USBC. For change of occupancy, application for a permit shall be made when a new certificate of occupancy is required under Section 103.3.

2. Movement of a lot line that increases the hazard to or decreases the level of safety of an existing building or structure in comparison to the building code under which such building or structure was constructed.

3. Removal or disturbing of any asbestos containing materials during the construction or demolition of a building or structure, including additions.

108.2 Exemptions from application for permit. Notwithstanding the requirements of Section 108.1, application for a permit and any related inspections shall not be required for the following; however, this section shall not be construed to exempt such activities from other applicable requirements of this code. In addition, when an owner or an owner's agent requests that a permit be issued for any of the following, then a permit shall be issued and any related inspections shall be required.

1. Installation of wiring and equipment that (i) operates at less than 50 volts, (ii) is for network powered broadband communications systems, or (iii) is exempt under Section 102.3(1), except when any such installations are located in a plenum, penetrate fire rated or smoke protected construction or are a component of any of the following:

   1.1. Fire alarm system.

   1.2. Fire detection system.

   1.3. Fire suppression system.

   1.4. Smoke control system.

   1.5. Fire protection supervisory system.

   1.6. Elevator fire safety control system.

   1.7. Access or egress control system or delayed egress locking or latching system.

   1.8. Fire damper.

   1.9. Door control system.

2. Detached accessory structures used as tool and storage sheds, playhouses or similar uses, provided the floor area does not exceed 150 square feet (14 m^2) and the structures are not accessory to a Group F or H occupancy.

3. Detached pre-fabricated buildings housing the equipment of a publicly regulated utility service, provided the floor area does not exceed 150 square feet (14 m^2).

4. Tents or air-supported structures, or both, that cover an area of 900 square feet (84 m^2) or less, including within that area all connecting areas or spaces with a common means of egress or entrance, provided such tents or structures have an occupant load of 50 or less persons.

5. Fences and privacy walls not part of a building, structure or of the barrier for a swimming pool, provided such fences and privacy walls do not exceed six feet in height above the finished grade. Ornamental post caps shall not be considered to contribute to the height of the fence or privacy wall and shall be permitted to extend above the six feet height measurement.

6. Retaining walls supporting less than two feet of unbalanced fill. This exemption shall not apply to any wall impounding Class I, II or III-A liquids or supporting a surcharge other than ordinary unbalanced fill.

7. Swimming pools that have a surface area not greater than 150 square feet (13.95 m^2), do not exceed 5,000 gallons (19 000 L) and are less than 24 inches (610 mm) deep.

8. Ordinary repairs not including (i) the cutting away of any wall, partition or portion thereof; (ii) the removal or cutting of any structural

Open burning. An operational permit is required for the kindling or maintaining of an open fire or a fire on any public street, alley, road, or other public or private ground. Instructions and stipulations of the permit shall be adhered to. **Exception:** Recreational fires.			
Open flames and candles. An operational permit is required to remove paint with a torch; use a torch or open-flame device in a hazardous fire area; or to use open flames or candles in connection with assembly areas, dining areas of restaurants or drinking establishments.			
Organic coatings. An operational permit is required for any organic-coating manufacturing operation producing more than 1 gallon (4 L) of an organic coating in one day.			
Assembly/educational. An operational permit is required to operate a place of assembly/educational occupancy.			
Private fire hydrants. An operational permit is required for the removal from service, use or operation of private fire hydrants. **Exception:** An operational permit is not required for private industry with trained maintenance personnel, private fire brigade or fire departments to maintain, test and use private hydrants.			
Pyrotechnic special effects material. An operational permit is required for use and handling of pyrotechnic special effects material.			
Pyroxylin plastics. An operational permit is required for storage or handling of more than 25 pounds (11 kg) of cellulose nitrate (pyroxylin) plastics and for the assembly or manufacture of articles involving pyroxylin plastics.			
Refrigeration equipment. An operational permit is required to operate a mechanical refrigeration unit or system regulated by Chapter 6.			
Repair garages and service stations. An operational permit is required for operation of repair garages and automotive, marine and fleet service stations.			
Rooftop heliports. An operational permit is required for the operation of a rooftop heliport.			
Spraying or dipping. An operational permit is required to conduct a spraying or dipping operation utilizing flammable or combustible liquids or the application of combustible powders regulated by Chapter 15.			
Storage of scrap tires and tire byproducts. An operational permit is required to establish, conduct or maintain storage of scrap tires and tire byproducts that exceeds 2,500 cubic feet (71 m^3) of total volume of scrap tires and for indoor storage of tires and tire byproducts.			
Temporary membrane structures, tents and canopies. An operational permit is required to operate an air-supported temporary membrane structure or a tent. **Exceptions:** 1. Tents used exclusively for recreational camping purposes. 2. Tents and air-supported structures that cover an area of 900 square feet (84 m^2) or less, including all connecting areas or spaces with a common means of egress or entrance and with an occupant load of 50 or less persons. 3. Fabric canopies and awnings open on all sides which comply with all of the following: 3.1. Individual canopies shall have a maximum size of 700 square feet (65 m^2). 3.2. The aggregate area of multiple canopies placed side by side without a fire break clearance of 12 feet (3658 mm) shall not exceed 700 square feet (65 m^2) total. 3.3. A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be provided.			
Tire-rebuilding plants. An operational permit is required for the operation and maintenance of a tire-rebuilding plant.			
Waste handling. An operational permit is required for the operation of wrecking yards, junk yards and waste material-handling facilities.			
Wood products. An operational permit is required to store chips, hogged material, lumber or plywood in excess of 200 cubic feet (6 m^3).			

107.3. Application for permit. Application for a permit shall be made on forms prescribed by the fire official.

107.4. Issuance of permits. Before a permit is issued, the fire official shall make such inspections or tests as are necessary to assure that the use and activities for which application is made comply with the provisions of this code.

107.5. Conditions of permit. A permit shall constitute permission to store or handle materials or to conduct processes in accordance with the SFPC, and shall not be construed as authority to omit or amend any of the provisions of this code. Permits shall remain in effect until revoked or for such period as specified on the permit. Permits are not transferable.

107.5.1. Special conditions for the State Fire Marshal's Office. Permits issued by the State Fire Marshal's Office for the use of explosives in special operations or under emergency conditions shall be valid for one week from the date of issuance and